

0066817

Analytical Data Package Prepared For

Fluor Hanford Inc.

Radiochemical Analysis By

STL Richland

2800 G.W. Way, Richland Wa, 99352, (509)-375-3131.

Assigned Laboratory Code: STLRL

Data Package Contains 103 Pages

Report No.: 28261



| SDG No. | Order No. | Client Sample ID (List Order) | Lot-Sa No. | Work Order | Report DB ID | Batch No. |
|---------|-----------|-------------------------------|-------------|------------|--------------|-----------|
| W04589 | F05-009 | B1CDF2 | J5C020167-3 | G5DGX1AD | 9G5DGX10 | 5063294 |
| | | B1CDF2 | J5C020167-3 | G5DGX1AE | 9G5DGX10 | 5063543 |
| | | B1CDF3 | J5C020167-4 | G5DG21AD | 9G5DG210 | 5063294 |
| | | B1CDF3 | J5C020167-4 | G5DG21AE | 9G5DG210 | 5063543 |
| | | B1CDF4 | J5C020167-2 | G5DGT1AD | 9G5DGT10 | 5063294 |
| | | B1CDF4 | J5C020167-2 | G5DGT1AE | 9G5DGT10 | 5063543 |
| | | B1CDF5 | J5C020167-1 | G5DGR1AD | 9G5DGR10 | 5063294 |
| | | B1CDF5 | J5C020167-1 | G5DGR1AE | 9G5DGR10 | 5063543 |
| | | B1CDF6 | J5C020167-6 | G5DHH1AD | 9G5DHH10 | 5063294 |
| | | B1CDF6 | J5C020167-6 | G5DHH1AE | 9G5DHH10 | 5063543 |
| | | B1CDF7 | J5C020167-5 | G5DHE1AD | 9G5DHE10 | 5063294 |
| | | B1CDF7 | J5C020167-5 | G5DHE1AE | 9G5DHE10 | 5063543 |
| | | B1CDF8 | J5C010147-1 | G494H1AD | 9G494H10 | 5063294 |
| | | B1CDF8 | J5C010147-1 | G494H1AE | 9G494H10 | 5063543 |
| | | B1CDF9 | J5C030200-1 | G5GDT1AD | 9G5GDT10 | 5063294 |
| | | B1CDF9 | J5C030200-1 | G5GDT1AJ | 9G5GDT10 | 5063543 |
| | | B1CDH0 | J5C030200-2 | G5GD71AD | 9G5GD710 | 5063294 |
| | | B1CDH0 | J5C030200-2 | G5GD71AE | 9G5GD710 | 5063543 |
| | | B1CDH1 | J5C030200-3 | G5GEC1AD | 9G5GEC10 | 5063294 |
| | | B1CDH1 | J5C030200-3 | G5GEC1AE | 9G5GEC10 | 5063543 |
| | | B1CDH2 | J5C010147-2 | G494L1AD | 9G494L10 | 5063294 |
| | | B1CDH2 | J5C010147-2 | G494L1AE | 9G494L10 | 5063543 |
| | | B1CDH3 | J5C010147-3 | G494N1AD | 9G494N10 | 5063294 |
| | | B1CDH3 | J5C010147-3 | G494N1AE | 9G494N10 | 5063543 |
| | | B1CF38 | J5C030200-4 | G5GEF1AD | 9G5GEF10 | 5063294 |
| | | B1CF38 | J5C030200-4 | G5GEF1AE | 9G5GEF10 | 5063543 |

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Certificate of Analysis

Fluor Hanford
P.O. Box 1000, T6-03
Richland, WA 99352

March 14, 2005

Attention: Steve Trent

| | | |
|-------------------|---|------------------------|
| SAF Number | : | F05-009 |
| Date SDG Closed | : | March 4, 2005 |
| Number of Samples | : | Fifteen (15) |
| Sample Type | : | Water |
| SDG Number | : | W04569 |
| Data Deliverable | : | 7-Day / 15-Day Summary |

CASE NARRATIVE

I. Introduction

Between March 1, 2005 and March 4, 2005, fifteen water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford (FH) specific IDs:

| <u>FH ID#</u> | <u>STLR ID#</u> | <u>MATRIX</u> | <u>DATE OF RECEIPT</u> |
|----------------------|------------------------|----------------------|-------------------------------|
| B1CDF8 | G494H | WATER | 3/1/05 |
| B1CDH2 | G494L | WATER | 3/1/05 |
| B1CDH3 | G494N | WATER | 3/1/05 |
| B1CDF5 | G5DGR | WATER | 3/1/05 |
| B1CDF4 | G5DGT | WATER | 3/1/05 |
| B1CDF2 | G5DGX | WATER | 3/1/05 |
| B1CDF3 | G5DG2 | WATER | 3/1/05 |
| B1CDF7 | G5DHE | WATER | 3/1/05 |
| B1CDF6 | G5DHH | WATER | 3/1/05 |
| B1CDF9 | G5GDT | WATER | 3/3/05 |
| B1CDH0 | G5GD7 | WATER | 3/3/05 |
| B1CDH1 | G5GEC | WATER | 3/3/05 |
| B1CF38 | G5GEF | WATER | 3/3/05 |
| B1CF72 | G5KJL | WATER | 3/4/05 |
| B1CF73 | G5KJT | WATER | 3/4/05 |

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in. The Total Uranium analysis was cancelled for this SAF on 3/4/05 per Steve Trent.

Fluor Hanford
March 14, 2005
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III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analysis was:

Alpha Spectroscopy
Uranium-234, -235, -238 by method RUCH-RC-5067
Liquid Scintillation Counting
Technetium-99 by method RICH-RC-5078

IV. Quality Control

The analytical results for each analysis performed under SDG W04569 includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy

Uranium-234, -235, -238 by method RUCH-RC-5067:

The LCS, batch blank, samples and sample duplicate (B1CF72) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by method RICH-RC-5078:

The LCS, batch blank, samples, sample duplicate (B1CDF9) and sample matrix spike (B1CDF9) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

for Becky Warrington
Becky Warrington
Project Manager

Drinking Water Method Cross References

| DRINKING WATER ASTM METHOD CROSS REFERENCES | | |
|--|---------------|---------------------------|
| Referenced Method | Isotope(s) | STL Richland's SOP number |
| EPA 901.1 | Cs-134, I-131 | RICH-RC-5017 |
| EPA 900.0 | Alpha & Beta | RICH-RC-5014 |
| EPA 903.1 | Ra-226 | RICH-RC-5005 |
| EPA 904.0 | Ra-228 | RICH-RC-5005 |
| EPA 905.0 | Sr89/90 | RICH-RC-5006 |
| ASTM D2460 | Total Radium | RICH-RC-5027 |
| Standard Method 7500-U-C & ASTM D5174 | Uranium | RICH-RC-5058 |
| EPA 906.0 | Tritium | RICH-RC-5007 |
| | | |
| | | |
| | | |
| | | |
| NOTE: | | |
| The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative) | | |
| The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative) | | |

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

| | |
|---|---|
| Action Lev | An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit. |
| Batch | The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together. |
| Bias | Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30. |
| COC No | Chain of Custody Number assigned by the Client or STL Richland. |
| Count Error (#s) | Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background. |
| Total Uncert (#s) u_c - Combined Uncertainty. | All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, u_c the <i>combined uncertainty</i> . The uncertainty is absolute and in the same units as the result. |
| (#s), Coverage Factor CRDL (RL) | The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations. |
| Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL) | |
| Lc | Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \sqrt{2 * (\text{BkgndCnt/BkgndCntMin}) / SCntMin} * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct}))$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero. |
| Lot-Sample No | The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot. |
| MDC MDA | Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \sqrt{((\text{BkgndCnt/BkgndCntMin}) / SCntMin) + 2.71 / SCntMin} * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct}))$. For LSC methods the batch blank is used as a measure of the background variability. |
| Primary Detector | The instrument identifier associated with the analysis of the sample aliquot. |
| Ratio U-234/U-238 | The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038. |
| Rst/MDC | Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result. |
| Rst/TotUcert | Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result. |
| Report DB No | Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number. |
| RER | The equation Replicate Error Ratio = $(S-D)/[\sqrt{(TPUs^2 + TPUD^2)}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUD is the total uncertainty of the duplicate sample. |
| SDG | Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt. |
| Sum Rpt Alpha Spec Rst(s) | The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units. |
| Work Order | The LIMS software assign test specific identifier. |
| Yield | The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method. |

Sample Results Summary

Date: 14-Mar-05

STL Richland STLRL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 28261

SDG No: W04569

| Client Id Batch | Work Order | Parameter | Result +/- Uncertainty (2s) | Qual | Units | Yield | MDC or MDA | CRDL | RPD |
|---------------------|------------|-----------|------------------------------|------|-------|-------|---------------|----------|-----|
| 5063543 KWSR | | | | | | | | | |
| B1CDF2 | | | | | | | | | |
| G5DGX1AE | U-234 | | 7.47E-01 +/- 1.80E-01 | | pCi/g | 62% | 2.70E-02 | 1.00E+00 | |
| | U-235 | | 1.81E-02 +/- 1.94E-02 | U | pCi/g | 62% | 2.28E-02 | 1.00E+00 | |
| | U-238 | | 8.05E-01 +/- 1.91E-01 | | pCi/g | 62% | 2.28E-02 | 1.00E+00 | |
| B1CDF3 | | | | | | | | | |
| G5DG21AE | U-234 | | 6.36E-01 +/- 1.68E-01 | | pCi/g | 54% | 1.54E-02 | 1.00E+00 | |
| | U-235 | | 4.54E-02 +/- 3.32E-02 | | pCi/g | 54% | 1.54E-02 | 1.00E+00 | |
| | U-238 | | 5.85E-01 +/- 1.58E-01 | | pCi/g | 54% | 1.54E-02 | 1.00E+00 | |
| B1CDF4 | | | | | | | | | |
| G5DGT1AE | U-234 | | 5.92E-01 +/- 1.46E-01 | | pCi/g | 68% | 3.83E-02 | 1.00E+00 | |
| | U-235 | | 1.97E-02 +/- 1.96E-02 | U | pCi/g | 68% | 2.42E-02 | 1.00E+00 | |
| | U-238 | | 6.03E-01 +/- 1.48E-01 | | pCi/g | 68% | 3.34E-02 | 1.00E+00 | |
| B1CDF5 | | | | | | | | | |
| G5DGR1AE | U-234 | | 6.07E-01 +/- 1.39E-01 | | pCi/g | 90% | 2.91E-02 | 1.00E+00 | |
| | U-235 | | 2.98E-02 +/- 2.23E-02 | | pCi/g | 90% | 2.64E-02 | 1.00E+00 | |
| | U-238 | | 6.33E-01 +/- 1.43E-01 | | pCi/g | 90% | 2.32E-02 | 1.00E+00 | |
| B1CDF6 | | | | | | | | | |
| G5DHH1AE | U-234 | | 7.22E-01 +/- 1.60E-01 | | pCi/g | 88% | 9.49E-03 | 1.00E+00 | |
| | U-235 | | 3.85E-02 +/- 2.42E-02 | | pCi/g | 88% | 9.49E-03 | 1.00E+00 | |
| | U-238 | | 7.60E-01 +/- 1.67E-01 | | pCi/g | 88% | 1.68E-02 | 1.00E+00 | |
| B1CDF7 | | | | | | | | | |
| G5DHE1AE | U-234 | | 9.25E-01 +/- 1.91E-01 | | pCi/g | 91% | 8.36E-03 | 1.00E+00 | |
| | U-235 | | 2.78E-02 +/- 1.91E-02 | | pCi/g | 91% | 8.36E-03 | 1.00E+00 | |
| | U-238 | | 8.64E-01 +/- 1.81E-01 | | pCi/g | 91% | 8.36E-03 | 1.00E+00 | |
| B1CDF8 | | | | | | | | | |
| G494H1AE | U-234 | | 6.14E-01 +/- 1.42E-01 | | pCi/g | 84% | 2.23E-02 | 1.00E+00 | |
| | U-235 | | 2.12E-03 +/- 7.37E-03 | U | pCi/g | 84% | 2.00E-02 | 1.00E+00 | |
| | U-238 | | 5.78E-01 +/- 1.35E-01 | | pCi/g | 84% | 2.23E-02 | 1.00E+00 | |
| B1CDF9 | | | | | | | | | |
| G5GDT1AJ | U-234 | | 6.37E-01 +/- 1.47E-01 | | pCi/g | 83% | 9.98E-03 | 1.00E+00 | |
| | U-235 | | 2.95E-03 +/- 7.53E-03 | U | pCi/g | 83% | 1.76E-02 | 1.00E+00 | |
| | U-238 | | 6.14E-01 +/- 1.43E-01 | | pCi/g | 83% | 1.76E-02 | 1.00E+00 | |
| B1CDH0 | | | | | | | | | |
| G5GD71AE | U-234 | | 4.88E-01 +/- 1.11E-01 | | pCi/g | 85% | 1.53E-02 | 1.00E+00 | |
| | U-235 | | 2.23E-02 +/- 1.73E-02 | | pCi/g | 85% | 8.63E-03 | 1.00E+00 | |
| | U-238 | | 4.72E-01 +/- 1.12E-01 | | pCi/g | 85% | 8.63E-03 | 1.00E+00 | |
| B1CDH1 | | | | | | | | | |
| G5GEC1AE | U-234 | | 6.93E-01 +/- 1.51E-01 | | pCi/g | 99% | 1.96E-02 | 1.00E+00 | |

STL Richland RPD - Relative Percent Difference.
rptSTLRchSaSum U Qual - Analyzed for, but the result is less than the Mdc/Mda/Total Uncert or gamma scan software did not identify the nuclide.
mary2 V4.11 A97

Sample Results Summary
STL Richland STLRL
 Ordered by Method, Batch No., Client Sample ID.

Date: 14-Mar-05

Report No.: 28261

SDG No: W04569

| Client Id Batch | Work Order | Parameter | Result +/- Uncertainty (2s) | Qual | Units | Yield | MDC or MDA | CRDL | RPD |
|--------------------------------|------------|-----------|------------------------------|------|-------|-------|---------------|----------|------|
| 5063543 KWSR | | | | | | | | | |
| B1CDH1 | | | | | | | | | |
| G5GEC1AE | U-235 | | 1.12E-02 +/- 1.27E-02 | U | pCi/g | 99% | 1.75E-02 | 1.00E+00 | |
| | U-238 | | 7.61E-01 +/- 1.63E-01 | | pCi/g | 99% | 1.96E-02 | 1.00E+00 | |
| B1CDH2 | | | | | | | | | |
| G494L1AE | U-234 | | 1.23E+00 +/- 2.67E-01 | | pCi/g | 66% | 2.61E-02 | 1.00E+00 | |
| | U-235 | | 4.53E-02 +/- 3.04E-02 | | pCi/g | 66% | 2.21E-02 | 1.00E+00 | |
| | U-238 | | 1.06E+00 +/- 2.36E-01 | | pCi/g | 66% | 2.92E-02 | 1.00E+00 | |
| B1CDH3 | | | | | | | | | |
| G494N1AE | U-234 | | 7.77E-01 +/- 1.69E-01 | | pCi/g | 86% | 3.03E-02 | 1.00E+00 | |
| | U-235 | | 2.57E-02 +/- 1.98E-02 | | pCi/g | 86% | 1.92E-02 | 1.00E+00 | |
| | U-238 | | 7.66E-01 +/- 1.67E-01 | | pCi/g | 86% | 2.49E-02 | 1.00E+00 | |
| B1CF38 | | | | | | | | | |
| G5GEF1AE | U-234 | | 6.63E-01 +/- 1.52E-01 | | pCi/g | 83% | 1.75E-02 | 1.00E+00 | |
| | U-235 | | 3.65E-02 +/- 2.39E-02 | | pCi/g | 83% | 9.89E-03 | 1.00E+00 | |
| | U-238 | | 5.93E-01 +/- 1.39E-01 | | pCi/g | 83% | 2.30E-02 | 1.00E+00 | |
| B1CF72 | | | | | | | | | |
| G5KJL1AE | U-234 | | 6.31E-01 +/- 1.47E-01 | | pCi/g | 78% | 3.36E-02 | 1.00E+00 | |
| | U-235 | | 3.60E-02 +/- 2.46E-02 | | pCi/g | 78% | 2.12E-02 | 1.00E+00 | |
| | U-238 | | 6.87E-01 +/- 1.57E-01 | | pCi/g | 78% | 2.76E-02 | 1.00E+00 | |
| B1CF72 DUP | | | | | | | | | |
| G5KJL1AG | U-234 | | 6.23E-01 +/- 1.50E-01 | | pCi/g | 70% | 3.56E-02 | 1.00E+00 | 1.3 |
| | U-235 | | 4.47E-02 +/- 3.01E-02 | | pCi/g | 70% | 3.23E-02 | 1.00E+00 | 21.6 |
| | U-238 | | 6.89E-01 +/- 1.62E-01 | | pCi/g | 70% | 2.85E-02 | 1.00E+00 | 0.2 |
| B1CF73 | | | | | | | | | |
| G5KJT1AE | U-234 | | 2.49E+00 +/- 4.80E-01 | | pCi/g | 72% | 3.52E-02 | 1.00E+00 | |
| | U-235 | | 6.93E-02 +/- 3.56E-02 | | pCi/g | 72% | 2.23E-02 | 1.00E+00 | |
| | U-238 | | 2.51E+00 +/- 4.85E-01 | | pCi/g | 72% | 3.38E-02 | 1.00E+00 | |
| 5063294 TC99_ETVDSK_LSC | | | | | | | | | |
| B1CDF2 | | | | | | | | | |
| G5DGX1AD | TC-99 | | -1.26E-01 +/- 3.47E-01 | U | pCi/g | 100% | 6.42E-01 | 1.50E+01 | |
| B1CDF3 | | | | | | | | | |
| G5DG21AD | TC-99 | | -1.39E-01 +/- 3.46E-01 | U | pCi/g | 100% | 6.42E-01 | 1.50E+01 | |
| B1CDF4 | | | | | | | | | |
| G5DGT1AD | TC-99 | | -2.11E-01 +/- 3.25E-01 | U | pCi/g | 100% | 6.12E-01 | 1.50E+01 | |
| B1CDF5 | | | | | | | | | |
| G5DGR1AD | TC-99 | | -5.22E-02 +/- 3.20E-01 | U | pCi/g | 100% | 5.87E-01 | 1.50E+01 | |
| B1CDF6 | | | | | | | | | |
| G5DHH1AD | TC-99 | | -3.82E-02 +/- 3.52E-01 | U | pCi/g | 100% | 6.42E-01 | 1.50E+01 | |
| B1CDF7 | | | | | | | | | |

STL Richland RPD - Relative Percent Difference.

rptSTLRchSaSummary2 V4.11 A97 U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

Sample Results Summary
STL Richland STLRL
 Ordered by Method, Batch No., Client Sample ID.

Date: 14-Mar-05

Report No.: 28261

SDG No: W04569

| Batch | Client Id Work Order | Parameter | Result +/- Uncertainty (2s) | Qual | Units | Yield | MDC or MDA | CRDL | RPD |
|--------------------------------|-------------------------|-----------|------------------------------|------|-------|-------|---------------|----------|--------|
| 5063294 TC99_ETVDSK_LSC | | | | | | | | | |
| B1CDF7 | G5DHE1AD | TC-99 | 5.00E-02 +/- 3.25E-01 | U | pCi/g | 100% | 5.84E-01 | 1.50E+01 | |
| B1CDF8 | G494H1AD | TC-99 | -1.41E-01 +/- 3.14E-01 | U | pCi/g | 100% | 5.85E-01 | 1.50E+01 | |
| B1CDF9 | G5GDT1AD | TC-99 | -3.21E-02 +/- 3.53E-01 | U | pCi/g | 100% | 6.46E-01 | 1.50E+01 | |
| B1CDF9 DUP | G5GDT1AG | TC-99 | 1.10E-02 +/- 3.55E-01 | U | pCi/g | 100% | 6.42E-01 | 1.50E+01 | -409.7 |
| B1CDH0 | G5GD71AD | TC-99 | -2.41E-02 +/- 3.36E-01 | U | pCi/g | 100% | 6.12E-01 | 1.50E+01 | |
| B1CDH1 | G5GEC1AD | TC-99 | 5.54E-02 +/- 3.58E-01 | U | pCi/g | 100% | 6.48E-01 | 1.50E+01 | |
| B1CDH2 | G494L1AD | TC-99 | 4.97E-02 +/- 3.40E-01 | U | pCi/g | 100% | 6.12E-01 | 1.50E+01 | |
| B1CDH3 | G494N1AD | TC-99 | -7.11E-03 +/- 3.54E-01 | U | pCi/g | 100% | 6.42E-01 | 1.50E+01 | |
| B1CF38 | G5GEF1AD | TC-99 | 1.72E-01 +/- 3.64E-01 | U | pCi/g | 100% | 6.42E-01 | 1.50E+01 | |
| B1CF72 | G5KJL1AC | TC-99 | 1.32E-02 +/- 3.56E-01 | U | pCi/g | 100% | 6.47E-01 | 1.50E+01 | |
| B1CF73 | G5KJT1AC | TC-99 | -1.77E-01 +/- 3.28E-01 | U | pCi/g | 100% | 6.13E-01 | 1.50E+01 | |
| No. of Results: 64 | | | | | | | | | |

STL Richland RPD - Relative Percent Difference.
 rptSTLRchSaSum U Qual - Analyzed for, but the result is less than the Mdc/MDA|Total Uncert or gamma scan software did not identify the nuclide.
 mary2 V4.11 A97

QC Results Summary
STL Richland STLRL
 Ordered by Method, Batch No, QC Type.,

Date: 14-Mar-05

Report No.: 28261

SDG No.: W04569

| Batch | Work Order | Parameter | Result +/- Uncertainty (2s) | Qual | Units | Yield | Recovery | Bias | MDC MDA |
|------------------------|--------------|-----------|------------------------------|------|-------|-------|----------|------|----------|
| KWSR | | | | | | | | | |
| 5063543 | BLANK QC | | | | | | | | |
| G5L1G1AA | U-234 | | 2.64E-02 +/- 2.00E-02 | | pCi/g | 93% | | | 2.21E-02 |
| | U-235 | | -6.44E-04 +/- 1.29E-03 | U | pCi/g | 93% | | | 1.54E-02 |
| | U-238 | | 2.51E-02 +/- 1.87E-02 | | pCi/g | 93% | | | 1.54E-02 |
| 5063543 | LCS | | | | | | | | |
| G5L1G1AC | U-234 | | 1.59E+00 +/- 3.07E-01 | | pCi/g | 97% | 97% | 0.0 | 1.52E-02 |
| | U-238 | | 1.65E+00 +/- 3.17E-01 | | pCi/g | 97% | 96% | 0.0 | 8.61E-03 |
| TC99_ETVDSK_LSC | | | | | | | | | |
| 5063294 | MATRIX SPIKE | | | | | | | | |
| G5GDT1AF | TC-99 | | 1.88E+02 +/- 1.11E+01 | | pCi/g | 100% | 83% | -0.2 | 6.46E-01 |
| 5063294 | BLANK QC | | | | | | | | |
| G5JXF1AA | TC-99 | | 1.20E-01 +/- 3.61E-01 | U | pCi/g | 100% | | | 6.43E-01 |
| 5063294 | LCS | | | | | | | | |
| G5JXF1AC | TC-99 | | 1.97E+02 +/- 1.16E+01 | | pCi/g | 100% | 87% | -0.1 | 6.43E-01 |
| No. of Results: 8 | | | | | | | | | |

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 3/1/2005 8:50:00 AM

Lot-Sample No.: J5C020167-3

Report No.: 28261

Received Date: 3/1/2005 2:00:00 PM

Client Sample ID: B1CDF2

COC No.: F05-009-025

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result Qual | Count Error (2 s) | Total Uncert (2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|-----------------|----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | Work Order: G5DGX1AD | | Report DB ID: 9G5DGX10 | | | | | |
| TC-99 | -1.26E-01 U | 2.61E-01 | 3.47E-01 | 6.42E-01 | pCi/g | 100% | -0.2 | 3/11/05 02:43 a | 2.0 | LSC4 | |
| | | | | | 3.09E-01 | 1.50E+01 | -0.73 | | G | | |
| Batch: 5063543 | KWSR | | | Work Order: G5DGX1AE | | Report DB ID: 9G5DGX10 | | | | | |
| U-234 | 7.47E-01 | | 1.80E-01 | 2.70E-02 | pCi/g | 62% | (27.7) | 3/10/05 03:40 p | 2.03 | ALP6 | |
| | | | | | 7.02E-03 | 1.00E+00 | (8.3) | | G | | |
| U-235 | 1.81E-02 U | | 1.94E-02 | 2.28E-02 | pCi/g | 62% | 0.79 | 3/10/05 03:40 p | 2.03 | ALP6 | |
| | | | | | 4.96E-03 | 1.00E+00 | (1.9) | | G | | |
| U-238 | 8.05E-01 | | 1.91E-01 | 2.28E-02 | pCi/g | 62% | (35.2) | 3/10/05 03:40 p | 2.03 | ALP6 | |
| | | | | | 4.96E-03 | 1.00E+00 | (8.4) | | G | | |

Ratio U-234/238 = 0.9

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 3/1/2005 9:50:00 AM

Lot-Sample No.: J5C020167-4

Report No.: 28261

Received Date: 3/1/2005 2:00:00 PM

Client Sample ID: B1CDF3

COC No.: F05-009-026

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUcert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|------------------|------|-----------------------|-----------------------|------------------------|-----------------|------------------------|--------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5DG21AD | | Report DB ID: 9G5DG210 | | | | | |
| TC-99 | -1.39E-01 | U | 2.61E-01 | 3.46E-01 | 6.42E-01 | pCi/g | 100% | -0.22 | 3/11/05 03:45 a | 2.0 | G | LSC4 |
| | | | | | | | 3.09E-01 | 1.50E+01 | | | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5DG21AE | | Report DB ID: 9G5DG210 | | | | | |
| U-234 | 6.36E-01 | | | 1.68E-01 | 1.54E-02 | pCi/g | 54% | (41.3) | 3/10/05 03:41 p | 2.0 | G | ALP7 |
| | | | | | | | 1.00E+00 | (7.6) | | | | |
| U-235 | 4.54E-02 | | | 3.32E-02 | 1.54E-02 | pCi/g | 54% | (3.) | 3/10/05 03:41 p | 2.0 | G | ALP7 |
| | | | | | | | 1.00E+00 | (2.7) | | | | |
| U-238 | 5.85E-01 | | | 1.58E-01 | 1.54E-02 | pCi/g | 54% | (38.) | 3/10/05 03:41 p | 2.0 | G | ALP7 |
| | | | | | | | 1.00E+00 | (7.4) | | | | |

Ratio U-234/238 = 1.1

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland
Lot-Sample No.: J5C020167-2
Client Sample ID: B1CDF4

SDG: W04569
Report No.: 28261
COC No.: F05-009-027

Collection Date: 3/1/2005 10:30:00 AM
Received Date: 3/1/2005 2:00:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|--------------------|------|--------------------|--------------------|----------------------|--------------|------------------------|------------------------|---------------------|---------------|--------------|------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5DGT1AD | | Report DB ID: 9G5DGT10 | | | | | |
| TC-99 | -2.11E-01 U | | 2.45E-01 | 3.25E-01 | 6.12E-01 | pCi/g | 100% | -0.35 | 3/11/05 01:41 a | 2.1 | LSC4 | |
| | | | | | | 2.94E-01 | 1.50E+01 | -(1.3) | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5DGT1AE | | Report DB ID: 9G5DGT10 | | | | | |
| U-234 | 5.92E-01 | | | 1.46E-01 | 3.83E-02 | pCi/g | 68% | (15.4) | 3/10/05 03:40 p | 2.0 | ALP5 | |
| | | | | | | 1.34E-02 | 1.00E+00 | (8.1) | | G | | |
| U-235 | 1.97E-02 U | | | 1.96E-02 | 2.42E-02 | pCi/g | 68% | 0.81 | 3/10/05 03:40 p | 2.0 | ALP5 | |
| | | | | | | 6.30E-03 | 1.00E+00 | (2.) | | G | | |
| U-238 | 6.03E-01 | | | 1.48E-01 | 3.34E-02 | pCi/g | 68% | (18.) | 3/10/05 03:40 p | 2.0 | ALP5 | |
| | | | | | | 1.09E-02 | 1.00E+00 | (8.2) | | G | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.
 V4.11 A97

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 3/1/2005 11:10:00 AM

Lot-Sample No.: J5C020167-1

Report No.: 28261

Received Date: 3/1/2005 2:00:00 PM

Client Sample ID: B1CDF5

COC No.: F05-009-028

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|--------------------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | Work Order: GSDGR1AD | | Report DB ID: 9G5DGR10 | | | | | |
| TC-99 | -5.22E-02 U | 2.40E-01 | 3.20E-01 | 5.87E-01 | pCi/g | 100% | -0.09 | 3/11/05 12:39 a | 2.2 | LSC4 | |
| | | | | | 2.82E-01 | 1.50E+01 | -0.33 | | G | | |
| Batch: 5063543 | KWSR | | | Work Order: GSDGR1AE | | Report DB ID: 9G5DGR10 | | | | | |
| U-234 | 6.07E-01 | | 1.39E-01 | 2.91E-02 | pCi/g | 90% | (20.9) | 3/10/05 03:40 p | 2.0 | ALP4 | |
| | | | | | 9.96E-03 | 1.00E+00 | (8.7) | | G | | |
| U-235 | 2.98E-02 | | 2.23E-02 | 2.64E-02 | pCi/g | 90% | (1.1) | 3/10/05 03:40 p | 2.0 | ALP4 | |
| | | | | | 8.63E-03 | 1.00E+00 | (2.7) | | G | | |
| U-238 | 6.33E-01 | | 1.43E-01 | 2.32E-02 | pCi/g | 90% | (27.2) | 3/10/05 03:40 p | 2.0 | ALP4 | |
| | | | | | 7.04E-03 | 1.00E+00 | (8.8) | | G | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:



FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 2/24/2005 1:30:00 PM

Lot-Sample No.: J5C020167-6

Report No.: 28261

Received Date: 3/1/2005 9:20:00 AM

Client Sample ID: B1CDF6

COC No.: F05-009-030

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|------------------|------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5DHH1AD | | Report DB ID: 9G5DHH10 | | | | | |
| TC-99 | -3.82E-02 | U | 2.64E-01 | 3.52E-01 | 6.42E-01 | pCi/g | 100% | -0.06 | 3/11/05 05:50 a | 2.0 | LSC4 | |
| | | | | | | 3.09E-01 | 1.50E+01 | -0.22 | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5DHH1AE | | Report DB ID: 9G5DHH10 | | | | | |
| U-234 | 7.22E-01 | | | 1.60E-01 | 9.49E-03 | pCi/g | 88% | (76.) | 3/10/05 03:41 p | 2.0 | ALP9 | |
| | | | | | | | 1.00E+00 | (9.) | | G | | |
| U-235 | 3.85E-02 | | | 2.42E-02 | 9.49E-03 | pCi/g | 88% | (4.1) | 3/10/05 03:41 p | 2.0 | ALP9 | |
| | | | | | | | 1.00E+00 | (3.2) | | G | | |
| U-238 | 7.60E-01 | | | 1.67E-01 | 1.68E-02 | pCi/g | 88% | (45.3) | 3/10/05 03:41 p | 2.0 | ALP9 | |
| | | | | | | 3.65E-03 | 1.00E+00 | (9.1) | | G | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 2/25/2005 9:40:00 AM

Lot-Sample No.: J5C020167-5

Report No.: 28261

Received Date: 3/1/2005 9:20:00 AM

Client Sample ID: B1CDF7

COC No.: F05-009-030

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|-----------------|------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5DHE1AD | | Report DB ID: 9G5DHE10 | | | | | |
| TC-99 | 5.00E-02 | U | 2.43E-01 | 3.25E-01 | 5.84E-01 | pCi/g | 100% | 0.09 | 3/11/05 04:48 a | 2.2 | LSC4 | |
| | | | | | 2.81E-01 | 1.50E+01 | | 0.31 | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5DHE1AE | | Report DB ID: 9G5DHE10 | | | | | |
| U-234 | 0.25E-01 | | | 1.91E-01 | 8.36E-03 | pCi/g | 91% | (110.7) | 3/10/05 03:41 p | 2.1 | ALP8 | |
| | | | | | | | 1.00E+00 | (9.7) | | G | | |
| U-235 | 2.78E-02 | | | 1.91E-02 | 8.36E-03 | pCi/g | 91% | (3.3) | 3/10/05 03:41 p | 2.1 | ALP8 | |
| | | | | | | | 1.00E+00 | (2.9) | | G | | |
| U-238 | 1.64E-01 | | | 1.81E-01 | 8.36E-03 | pCi/g | 91% | (103.3) | 3/10/05 03:41 p | 2.1 | ALP8 | |
| | | | | | | | 1.00E+00 | (9.6) | | G | | |

Ratio U-234/238 = 1.1

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 2/28/2005 4:10:00 PM

Lot-Sample No.: J5C010147-1

Report No.: 28261

Received Date: 3/1/2005 9:30:00 AM

Client Sample ID: B1CDF8

COC No.:

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert (2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|------------------|------|-----------------------|------------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G494H1AD | | Report DB ID: 9G494H10 | | | | | |
| TC-99 | -1.41E-01 | U | 2.37E-01 | 3.14E-01 | 5.85E-01 | pCi/g | 100% | -0.24 | 3/10/05 09:32 p | 2.2 | LSC4 | |
| | | | | | 2.81E-01 | 1.50E+01 | | -0.9 | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G494H1AE | | Report DB ID: 9G494H10 | | | | | |
| U-234 | 6.14E-01 | | | 1.42E-01 | 2.23E-02 | pCi/g | 84% | (27.5) | 3/10/05 03:38 p | 2.07 | ALP1 | |
| | | | | | 6.38E-03 | 1.00E+00 | | (8.7) | | G | | |
| U-235 | 2.12E-03 | U | | 7.37E-03 | 2.00E-02 | pCi/g | 84% | 0.11 | 3/10/05 03:38 p | 2.07 | ALP1 | |
| | | | | | 5.21E-03 | 1.00E+00 | | 0.58 | | G | | |
| U-238 | 5.78E-01 | | | 1.35E-01 | 2.23E-02 | pCi/g | 84% | (25.9) | 3/10/05 03:38 p | 2.07 | ALP1 | |
| | | | | | 6.38E-03 | 1.00E+00 | | (8.5) | | G | | |

Ratio U-234/238 = 1.1

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland
Lot-Sample No.: J5C030200-1
Client Sample ID: B1CDF9

SDG: W04569
Report No.: 28261
COC No.:

Collection Date: 3/2/2005 10:00:00 AM
Received Date: 3/3/2005 8:55:00 AM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count | Total | MDC MDA, | Rpt Unit, | Yield | Rst/MDC, | Analysis, | Total Sa | Aliquot | Primary |
|----------------|--------------------|------|--------------|--------------|----------------------|-----------|------------------------|---------------|-----------------|----------|---------|----------|
| | | | Error (2 s) | Uncert(2 s) | Action Lev | Lc | CRDL(RL) | Rst/TotUncert | Prep Date | Sa Size | Size | Detector |
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5GDT1AD | | Report DB ID: 9G5GDT10 | | | | | |
| TC-99 | -3.21E-02 U | | 2.65E-01 | 3.53E-01 | 6.46E-01 | pCi/g | 100% | -0.05 | 3/11/05 06:52 a | 2.0 | G | LSC4 |
| | | | | | 3.10E-01 | 1.50E+01 | | -0.18 | | | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5GDT1AJ | | Report DB ID: 9G5GDT10 | | | | | |
| U-234 | 6.37E-01 | | | 1.47E-01 | 9.98E-03 | pCi/g | 83% | (63.8) | 3/10/05 03:42 p | 2.0 | G | ALP10 |
| | | | | | | | 1.00E+00 | (8.7) | | | | |
| U-235 | 2.95E-03 U | | | 7.53E-03 | 1.76E-02 | pCi/g | 83% | 0.17 | 3/10/05 03:42 p | 2.0 | G | ALP10 |
| | | | | | 3.83E-03 | 1.00E+00 | | 0.78 | | | | |
| U-238 | 6.14E-01 | | | 1.43E-01 | 1.76E-02 | pCi/g | 83% | (34.8) | 3/10/05 03:42 p | 2.0 | G | ALP10 |
| | | | | | 3.83E-03 | 1.00E+00 | | (8.6) | | | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland
 Lot-Sample No.: J5C030200-2
 Client Sample ID: B1CDH0

SDG: W04569
 Report No.: 28261
 COC No.:

Collection Date: 3/2/2005 12:40:00 PM
 Received Date: 3/3/2005 8:55:00 AM
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|--------------------|----------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5GD71AD | | Report DB ID: 9G5GD710 | | | | | |
| TC-99 | -2.41E-02 U | 2.52E-01 | 3.36E-01 | 6.12E-01 | pCi/g | 100% | -0.04 | 3/11/05 11:01 a | | 2.1 | LSC4 | |
| | | | | | 2.94E-01 | 1.50E+01 | -0.14 | | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5GD71AE | | Report DB ID: 9G5GD710 | | | | | |
| U-234 | 4.68E-01 | | | 1.11E-01 | 1.53E-02 pCi/g | 85% | (30.6) | 3/10/05 03:42 p | | 2.03 | ALP11 | |
| | | | | | 3.32E-03 | 1.00E+00 | (8.4) | | | G | | |
| U-235 | 2.23E-02 | | | 1.73E-02 | 8.63E-03 pCi/g | 85% | (2.6) | 3/10/05 03:42 p | | 2.03 | ALP11 | |
| | | | | | | 1.00E+00 | (2.6) | | | G | | |
| U-238 | 4.72E-01 | | | 1.12E-01 | 8.63E-03 pCi/g | 85% | (54.6) | 3/10/05 03:42 p | | 2.03 | ALP11 | |
| | | | | | | 1.00E+00 | (8.4) | | | G | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.
 V4.11 A97

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 3/2/2005 3:30:00 PM

Lot-Sample No.: J5C030200-3

Report No.: 28261

Received Date: 3/3/2005 8:55:00 AM

Client Sample ID: B1CDH1

COC No.:

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count | Total | MDC MDA, | Rpt Unit, | Yield | Rst/MDC, | Analysis, | Total Sa | Aliquot | Primary |
|----------------|-----------------|------|--------------|--------------|----------------------|-----------|------------------------|---------------|-----------------|----------|---------|----------|
| | | | Error (2 s) | Uncert(2 s) | Action Lev | Lc | CRDL(RL) | Rst/TotUncert | Prep Date | Size | Size | Detector |
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5GEC1AD | | Report DB ID: 9G5GEC10 | | | | | |
| TC-99 | 5.54E-02 | U | 2.69E-01 | 3.58E-01 | 6.48E-01 | pCi/g | 100% | 0.09 | 3/11/05 12:03 p | 2.0 | G | LSC4 |
| | | | | | 3.11E-01 | 1.50E+01 | 0.31 | | | | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5GEC1AE | | Report DB ID: 9G5GEC10 | | | | | |
| U-234 | 6.93E-01 | | | 1.51E-01 | 1.96E-02 | pCi/g | 99% | (35.4) | 3/10/05 07:46 p | 2.0 | G | ALP1 |
| | | | | | 5.59E-03 | 1.00E+00 | (9.2) | | | | | |
| U-235 | 1.12E-02 | U | | 1.27E-02 | 1.75E-02 | pCi/g | 99% | 0.64 | 3/10/05 07:46 p | 2.0 | G | ALP1 |
| | | | | | 4.57E-03 | 1.00E+00 | (1.8) | | | | | |
| U-238 | 7.61E-01 | | | 1.63E-01 | 1.96E-02 | pCi/g | 99% | (38.9) | 3/10/05 07:46 p | 2.0 | G | ALP1 |
| | | | | | 5.59E-03 | 1.00E+00 | (9.4) | | | | | |

Ratio U-234/238 = 0.9

No. of Results: 4 Comments:

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.
 V4.11 A97

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 2/28/2005 9:30:00 AM

Lot-Sample No.: J5C010147-2

Report No.: 28261

Received Date: 3/1/2005 9:30:00 AM

Client Sample ID: B1CDH2

COC No.:

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|-------------------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | Work Order: G494L1AD | | Report DB ID: 9G494L10 | | | | | |
| TC-99 | 4.97E-02 U | 2.55E-01 | 3.40E-01 | 6.12E-01 | pCi/g | 100% | 0.08 | 3/10/05 10:34 p | 2.1 | LSC4 | |
| | | | | | 2.94E-01 | 1.50E+01 | 0.29 | | G | | |
| Batch: 5063543 | KWSR | | | Work Order: G494L1AE | | Report DB ID: 9G494L10 | | | | | |
| U-234 | 1.23E+00 | | 2.67E-01 | 2.61E-02 | pCi/g | 66% | (47.) | 3/10/05 03:39 p | 2.05 | ALP2 | |
| | | | | | 6.80E-03 | 1.00E+00 | (9.2) | | G | | |
| U-235 | 4.53E-02 | | 3.04E-02 | 2.21E-02 | pCi/g | 66% | (2.) | 3/10/05 03:39 p | 2.05 | ALP2 | |
| | | | | | 4.81E-03 | 1.00E+00 | (3.) | | G | | |
| U-238 | 1.06E+00 | | 2.36E-01 | 2.92E-02 | pCi/g | 66% | (36.3) | 3/10/05 03:39 p | 2.05 | ALP2 | |
| | | | | | 8.33E-03 | 1.00E+00 | (9.) | | G | | |

Ratio U-234/238 = 1.2

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 2/28/2005 1:00:00 PM

Lot-Sample No.: J5C010147-3

Report No.: 28261

Received Date: 3/1/2005 9:30:00 AM

Client Sample ID: B1CDH3

COC No.:

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|-----------------|----------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G494N1AD | | Report DB ID: 9G494N10 | | | | | |
| TC-99 | -7.11E-03 U | 2.65E-01 | 3.54E-01 | 6.42E-01 | pCi/g | | 100% | -0.01 | 3/10/05 11:37 p | 2.0 | LSC4 | |
| | | | | | 3.09E-01 | 1.50E+01 | | -0.04 | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G494N1AE | | Report DB ID: 9G494N10 | | | | | |
| U-234 | 7.77E-01 | | 1.89E-01 | 3.03E-02 | pCi/g | | 86% | (25.6) | 3/10/05 03:39 p | 2.02 | ALP3 | |
| | | | | | 1.06E-02 | 1.00E+00 | | (9.2) | | G | | |
| U-235 | 2.57E-02 | | 1.98E-02 | 1.92E-02 | pCi/g | | 86% | (1.3) | 3/10/05 03:39 p | 2.02 | ALP3 | |
| | | | | | 4.99E-03 | 1.00E+00 | | (2.6) | | G | | |
| U-238 | 7.66E-01 | | 1.67E-01 | 2.49E-02 | pCi/g | | 86% | (30.7) | 3/10/05 03:39 p | 2.02 | ALP3 | |
| | | | | | 7.89E-03 | 1.00E+00 | | (9.2) | | G | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.
 V4.11 A97

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland
Lot-Sample No.: J5C030200-4
Client Sample ID: B1CF38

SDG: W04569
Report No.: 28261
COC No.:

Collection Date: 3/2/2005 10:00:00 AM
Received Date: 3/3/2005 8:55:00 AM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUcert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|-----------------|------|-----------------------|-----------------------|------------------------|-----------------|------------------------|--------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5GEF1AD | | Report DB ID: 9G5GEF10 | | | | | |
| TC-99 | 1.72E-01 | U | 2.71E-01 | 3.64E-01 | 6.42E-01 | pCi/g | 100% | 0.27 | 3/11/05 01:05 p | 2.0 | LSC4 | |
| | | | | | | 3.09E-01 | 1.50E+01 | 0.94 | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5GEF1AE | | Report DB ID: 9G5GEF10 | | | | | |
| U-234 | 6.63E-01 | | | 1.52E-01 | 1.75E-02 | pCi/g | 83% | (38.) | 3/10/05 07:46 p | 2.06 | ALP2 | |
| | | | | | | 3.80E-03 | 1.00E+00 | (8.7) | | G | | |
| U-235 | 3.65E-02 | | | 2.39E-02 | 9.89E-03 | pCi/g | 83% | (3.7) | 3/10/05 07:46 p | 2.06 | ALP2 | |
| | | | | | | | 1.00E+00 | (3.) | | G | | |
| U-238 | 5.93E-01 | | | 1.39E-01 | 2.30E-02 | pCi/g | 83% | (25.7) | 3/10/05 07:46 p | 2.06 | ALP2 | |
| | | | | | | 6.58E-03 | 1.00E+00 | (8.5) | | G | | |

Ratio U-234/238 = 1.1

No. of Results: 4 Comments:

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland
Lot-Sample No.: J5C040248-1
Client Sample ID: B1CF72

SDG: W04569
Report No.: 28261
COC No.: F05-009-086

Collection Date: 3/3/2005 11:00:00 AM
Received Date: 3/4/2005 11:30:00 AM
Matrix: WATER

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Count Quat | Total Error (2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|-------------------|---------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | Work Order: G5KJL1AC | | Report DB ID: 9G5KJL10 | | | | | |
| TC-99 | 1.32E-02 U | 2.67E-01 | 3.56E-01 | 6.47E-01 | pCi/g | 100% | 0.02 | 3/11/05 04:12 p | 2.0 | LSC4 | |
| | | | | 3.11E-01 | 1.50E+01 | 0.07 | | | G | | |
| Batch: 5063543 | KWSR | | | Work Order: G5KJL1AE | | Report DB ID: 9G5KJL10 | | | | | |
| U-234 | 6.31E-01 | | 1.47E-01 | 3.36E-02 | pCi/g | 78% | (18.8) | 3/10/05 07:46 p | 2.0 | ALP3 | |
| | | | | 1.17E-02 | 1.00E+00 | (8.6) | | | G | | |
| U-235 | 3.60E-02 | | 2.46E-02 | 2.12E-02 | pCi/g | 78% | (1.7) | 3/10/05 07:46 p | 2.0 | ALP3 | |
| | | | | 5.53E-03 | 1.00E+00 | (2.9) | | | G | | |
| U-238 | 6.87E-01 | | 1.57E-01 | 2.76E-02 | pCi/g | 78% | (24.9) | 3/10/05 07:46 p | 2.0 | ALP3 | |
| | | | | 8.74E-03 | 1.00E+00 | (8.7) | | | G | | |

Ratio U-234/238 = 0.9

No. of Results: 4 Comments:

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.
 V4.11 A97

FORM I
SAMPLE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Collection Date: 3/3/2005 1:50:00 PM

Lot-Sample No.: J5C040248-2

Report No.: 28261

Received Date: 3/4/2005 11:30:00 AM

Client Sample ID: B1CF73

COC No.: F05-009-087

Matrix: WATER

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|--------------------|----------|-----------------------|-----------------------|------------------------|-----------------|------------------------|---------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5KJT1AC | | Report DB ID: 9G5KJT10 | | | | | |
| TC-99 | -1.77E-01 U | 2.47E-01 | 3.28E-01 | 6.13E-01 | pCi/g | 100% | -0.29 | 3/11/05 05:14 p | | 2.1 | LSC4 | |
| | | | | 2.95E-01 | 1.50E+01 | (-1.1) | | | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5KJT1AE | | Report DB ID: 9G5KJT10 | | | | | |
| U-234 | 2.49E+00 | | | 4.80E-01 | 3.52E-02 pCi/g | 72% | (70.6) | 3/10/05 07:47 p | | 2.04 | ALP5 | |
| | | | | | 1.23E-02 | 1.00E+00 | (10.4) | | | G | | |
| U-235 | 6.93E-02 | | | 3.56E-02 | 2.23E-02 pCi/g | 72% | (3.1) | 3/10/05 07:47 p | | 2.04 | ALP5 | |
| | | | | | 5.80E-03 | 1.00E+00 | (3.9) | | | G | | |
| U-238 | 2.51E+00 | | | 4.85E-01 | 3.38E-02 pCi/g | 72% | (74.3) | 3/10/05 07:47 p | | 2.04 | ALP5 | |
| | | | | | 1.16E-02 | 1.00E+00 | (10.4) | | | G | | |

Ratio U-234/238 = 1.0

No. of Results: 4 Comments:

FORM II

Date: 14-Mar-05

DUPLICATE RESULTS

Lab Name: STL Richland

SDG: W04569

Collection Date: 3/2/2005 10:00:00 AM

Lot-Sample No.: J5C030200-1

Report No.: 28261

Received Date: 3/3/2005 8:55:00 AM

Client Sample ID: B1CDF9 DUP

COC No.:

Matrix: SOIL

| Parameter | Result, Orig Rst | Count Qual | Total Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, CRDL | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|---------------------|---------------|-----------------------|-----------------------|------------------------|-------------------|---------------------------|-------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5GDT1AG | | Report DB ID: G5GDT1GR | Orig Sa DB ID: 9G5GDT10 | | | |
| TC-99 | 1.10E-02 | U | 2.66E-01 | 3.55E-01 | 6.42E-01 | pCi/g | 100% | 0.02 | 3/11/05 09:59 a | 2.0 | LSC4 |
| | -3.21E-02 | U | RPD | -409.7 | | | 1.50E+01 | 0.06 | | G | |

No. of Results: 1 Comments:

STL Richland RPD - Relative Percent Difference.

rptSTLRchDupV4.1 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

1 A97 U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

FORM II
DUPLICATE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland
Lot-Sample No.: J5C040248-1
Client Sample ID: B1CF72 DUP

SDG: W04569
Report No.: 28261
COC No.: F05-009-086

Collection Date: 3/3/2005 11:00:00 AM
Received Date: 3/4/2005 11:30:00 AM
Matrix: WATER

| Parameter | Result, Orig Rst | Count Qual | Total Error(2 s) | MDC MDA, Action Lev | Rpt Unit, CRDL | Yield | Rst/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|---------------------|---------------|----------------------|------------------------|------------------------|-------|---------------------------|-------------------------|------------------|-----------------|---------------------|
| Batch: 5063543 | KWSR | | | Work Order: GSKJL1AG | Report DB ID: GSKJL1GR | | | Orig Sa DB ID: 9G5KJL10 | | | |
| U-234 | 6.23E-01 | | 1.50E-01 | 3.56E-02 | pCi/g | 70% | (17.5) | 3/10/05 07:47 p | | 2.09 | ALP4 |
| | 6.31E-01 | | RPD 1.3 | | 1.00E+00 | | (8.3) | | | G | |
| U-235 | 4.47E-02 | | 3.01E-02 | 3.23E-02 | pCi/g | 70% | (1.4) | 3/10/05 07:47 p | | 2.09 | ALP4 |
| | 3.60E-02 | | RPD 21.6 | | 1.00E+00 | | (3.) | | | G | |
| U-238 | 6.89E-01 | | 1.62E-01 | 2.85E-02 | pCi/g | 70% | (24.2) | 3/10/05 07:47 p | | 2.09 | ALP4 |
| | 6.87E-01 | | RPD 0.2 | | 1.00E+00 | | (8.5) | | | G | |

Ratio U-234/238 = 0.9

Alpha Spec Result Sum = 1.4E+00

No. of Results: 3 Comments:

STL Richland RPD - Relative Percent Difference.
rptSTLRchDupV4.1 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
1 A97

FORM II
BLANK RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Matrix: SOIL

Report No.: 28261

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA | Rpt Unit, CRDL | Yield | Rst/MDC, Rst/TotUcert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|------------------------------|-----------------|------|-----------------------|-----------------------|----------------------|------------------------|-------|--------------------------|------------------------|------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5JXF1AA | Report DB ID: G5JXF1AB | | | | | | |
| TC-99 | 1.20E-01 | U | 2.70E-01 | 3.61E-01 | 6.43E-01 | pCi/g | 100% | 0.19 | 3/11/05 02:08 p | 2.0 | LSC4 | |
| | | | | | 3.09E-01 | 2.00E+01 | | 0.66 | | G | | |
| Batch: 5063543 | KWSR | | | | Work Order: G5L1G1AA | Report DB ID: G5L1G1AB | | | | | | |
| U-234 | 2.64E-02 | | | 2.00E-02 | 2.21E-02 | pCi/g | 93% | (1.2) | 3/10/05 07:48 p | 2.0 | ALP6 | |
| | | | | | 6.70E-03 | 1.00E+00 | | (2.6) | | G | | |
| U-235 | -6.44E-04 | U | | 1.29E-03 | 1.54E-02 | pCi/g | 93% | -0.04 | 3/10/05 07:48 p | 2.0 | ALP6 | |
| | | | | | 3.35E-03 | 1.00E+00 | | -1. | | G | | |
| U-238 | 2.51E-02 | | | 1.87E-02 | 1.54E-02 | pCi/g | 93% | (1.6) | 3/10/05 07:48 p | 2.0 | ALP6 | |
| | | | | | 3.35E-03 | 1.00E+00 | | (2.7) | | G | | |
| <i>Ratio U-234/238 = 1.1</i> | | | | | | | | | | | | |

No. of Results: 4 Comments:

FORM II
LCS RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Matrix: SOIL

Report No.: 28261

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA | Report Unit | Yield | Expected | Expected Uncert | Recovery, Bias | Analysis, Prep Date | Aliquot Size | Primary Detector |
|----------------|-----------------|----------|-----------------------|-----------------------|----------------------|------------------------|-------|----------|--------------------|-------------------|------------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5JXF1AC | Report DB ID: G5JXF1CS | | | | | | | |
| TC-99 | 1.97E+02 | 1.92E+00 | 1.16E+01 | 6.43E-01 | pCi/g | | 100% | 2.26E+02 | 2.87E+00 | 87% | 3/11/05 03:10 p | 2.0 | LSC4 |
| | | | | | | Rec Limits: | 70 | 130 | -0.1 | | | G | |
| Batch: 5063543 | KWSR | | | | Work Order: G5L1G1AC | Report DB ID: G5L1G1CS | | | | | | | |
| U-234 | 1.59E+00 | | | 3.07E-01 | 1.52E-02 | pCi/g | 97% | 1.64E+00 | 1.01E-02 | 97% | 3/10/05 07:48 p | 2.0 | ALP7 |
| U-238 | 1.65E+00 | | | 3.17E-01 | 8.61E-03 | pCi/g | 97% | 1.72E+00 | 1.05E-02 | 96% | 3/10/05 07:48 p | 2.0 | ALP7 |
| | | | | | | Rec Limits: | 20 | 105 | 0.0 | | | G | |
| | | | | | | Rec Limits: | 20 | 105 | 0.0 | | | G | |

No. of Results: 3 Comments:

FORM II
MATRIX SPIKE RESULTS

Date: 14-Mar-05

Lab Name: STL Richland

SDG: W04569

Lot-Sample No.: J5C030200-1

Report No.: 28261

Matrix: SOIL

| Parameter | SpikeResult, Orig Rst | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA | Rpt Unit, CRDL | Yield | Rec- covery | Exp- ected | Exp Uncert | Analysis, Prep Date | Aliquot Size | Primary Detector |
|----------------|--------------------------|------|----------------------|----------------------|----------------------|------------------------|-------|----------------|-----------------|---------------|------------------------|-----------------|---------------------|
| Batch: 5063294 | TC99_ETVDSK_LSC | | | | Work Order: G5GDT1AF | Report DB ID: G5GDT1FW | | Orig Sa | DB ID: 9G5GDT10 | | | | |
| TC-99 | 1.88E+02 | | 1.88E+00 | 1.11E+01 | 6.46E-01 | pCi/g | 100% | 83.39% | 2.26E+02 | 1.86E+01 | 3/11/05 07:54 a | 2.0 | LSC4 |
| | -3.21E-02 | RPD | 34.0 | | | | | | | | | G | |

No. of Results: 1 Comments:

| | | |
|--------------|------|--|
| STL Richland | RER | - Replicate Error Ratio = $(S-D)/[\sqrt{(sq(TPU_s)+sq(TPU_d))}]$ as defined by ICPT BOA. |
| rptSTLRchMs | Bias | - $(Result/Expected)-1$ as defined by ANSI N13.30. |
| V4.11 A97 | | |

SEVERN
TRENT**STL**
Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

3/11/2005 1:34:11 PM

Lot No., Due Date: J5C010147,J5C020167,J5C030200,J5C040248; 03/11/2005

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 5063543; RUISO Also by ALP

SDG, Matrix: W04569; SOIL

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units?

Yes No N/A

4.2 Were analysis volumes entered correctly?

Yes No N/A

4.3 Were Yields entered correctly?

Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements?

Yes No N/A

4.5 Were raw counts reviewed for anomalies?

Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A

5.2 Are all required forms filled out?

Yes No N/A

5.3 Was the correct methodology used?

Yes No N/A

5.4 Was transcription checked?

Yes No N/A

5.5 Were all calculations checked at a minimum frequency?

Yes No N/A

5.6 Are worksheet entries complete and correct?

Yes No N/A

6.0 Comments on any No response:

First Level Review

*Pam Gundersen*Date 3-11-05

STL Richland

QAS_RADCALCV4.8.09

Page 1

**SEVERN
TRENT**

STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 506 3543

| Review Item | Yes (✓) | No (✗) | N/A (✗) |
|---|---------|--------|---------|
| A. Sample Analysis | | | |
| 1. Are the sample yields within acceptance criteria? | ✓ | | |
| 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit? | ✗ | | |
| 3. Are the correct isotopes reported? | ✗ | | |
| B. QC Samples | | | |
| 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? | ✗ | | |
| 2. Does the blank result meet the Contract criteria? | ✗ | | |
| 3. Is the blank result < the Contract Detection Limit? | ✗ | | |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? | | | ✓ |
| 5. Is the LCS recovery with contract acceptance criteria? | ✗ | | |
| 7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit? | ✗ | | |
| 8. Do the MS/MSD results and yields meet acceptance criteria? | | | ✗ |
| 9. Do the duplicate sample results and yields meet acceptance criteria? | ✗ | | |
| C. Other | | | |
| 1. Are all Nonconformances included and noted? | | | ✗ |
| 2. Are all required forms filled out? | | | |
| 3. Was the correct methodology used? | ✗ | | |
| 4. Was transcription checked? | ✗ | | |
| 5. Were all calculations checked at a minimum frequency? | ✗ | | |
| 6. Were units checked? | ✗ | | |

Comments on any "No" response:

Second Level Review:

Jackson Waddell

Date: 3/11/05



STL

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

3/14/2005 12:15:23 PM

Lot No., Due Date: J5C010147, J5C020167, J5C030200, J5C040248; 03/11/2005

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 5063294; RTC99 Tc-99 by LSC

SDG, Matrix: W04569; SOIL

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units?

Yes No N/A

4.2 Were analysis volumes entered correctly?

Yes No N/A

4.3 Were Yields entered correctly?

Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements?

Yes No N/A

4.5 Were raw counts reviewed for anomalies?

Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A

5.2 Are all required forms filled out?

Yes No N/A

5.3 Was the correct methodology used?

Yes No N/A

5.4 Was transcription checked?

Yes No N/A

5.5 Were all calculations checked at a minimum frequency?

Yes No N/A

5.6 Are worksheet entries complete and correct?

Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date 3-14-05

STL Richland

QAS_RADCALCv4.8.09

Page 1

SEVERN
TRENT

STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5063294

| Review Item | Yes (✓) | No (✗) | N/A (✗) |
|---|---------|--------|---------|
| A. Sample Analysis | | | ✓ |
| 1. Are the sample yields within acceptance criteria? | | | ✓ |
| 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit? | ✓ | | |
| 3. Are the correct isotopes reported? | ✓ | | |
| B. QC Samples | | | |
| 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? | ✓ | | |
| 2. Does the blank result meet the Contract criteria? | ✓ | | |
| 3. Is the blank result < the Contract Detection Limit? | ✓ | | |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? | | | ✓ |
| 5. Is the LCS recovery with contract acceptance criteria? | ✓ | | |
| 7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit? | ✓ | | |
| 8. Do the MS/MSD results and yields meet acceptance criteria? | ✓ | | |
| 9. Do the duplicate sample results and yields meet acceptance criteria? | ✓ | | |
| C. Other | | | |
| 1. Are all Nonconformances included and noted? | | | ✓ |
| 2. Are all required forms filled out? | ✓ | | |
| 3. Was the correct methodology used? | ✓ | | |
| 4. Was transcription checked? | ✓ | | |
| 5. Were all calculations checked at a minimum frequency? | ✓ | | |
| 6. Were units checked? | ✓ | | |

Comments on any "No" response:

Second Level Review:

Jelica Weddell

Date: 3/14/05

Fluor Hanford Inc.

COLLECTOR
POPE/PFISTER/MOKLER/TYRA
SAMPLING LOCATION
216-U-1 & 216-U-2;
ICE CHEST NO.

C4766 44°-46'

| CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | F05-009-035 | PAGE 1 OF 1 |
|---|---------------------------|--|--------------------------------------|---------------------|
| COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE BB | DATA TURNAROUND |
| PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | AIR QUALITY <input type="checkbox"/> | 7 Days / 15 Days |
| FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | |

SHIPPED TO
Severn Trent Incorporated, Richland

MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS
 A=Air
 DL=Drum
 Liquids
 DS=Drum
 Solids
 L=Liquid
 O=Oil
 S=Soil
 SE=Sediment
 T=Tissue
 V=Vegetation
 W=Water
 WI=Wipe
 X=Other
 J5C010147
 SDG#W04569

| | | | | |
|---------------------------------|-------------------------|--------------------------|----------------|---|
| PRESERVATION None | TYPE OF CONTAINER BG | NO. OF CONTAINER(S) 1 | VOLUME 60mL | Isotopic Uranium; Technetium-99; Total Uranium; |
| SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | | | |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|------------|---------|-------------|-------------|---|-------|--|--|--|--|
| B1CDH2 | SOIL | 2-28-05 | 0930 | X | 6494L | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| CHAIN OF POSSESSION | | | SIGN/ PRINT NAMES | | SPECIAL INSTRUCTIONS | |
|--|-------------------|---|---------------------|---|----------------------|--|
| RELINQUISHED BY/REMOVED FROM J5Pope/RL 2-28-05 | DATE/TIME 1700 | RECEIVED BY/STORED IN MO-026/RL #1 2-28-05 | DATE/TIME 1700 | ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | | |
| RELINQUISHED BY/REMOVED FROM MO-026/FR 9#1 3/1/05 | DATE/TIME 0600 | RECEIVED BY/STORED IN David Tyra/David Tyra 3/1/05 | DATE/TIME 0600 | | | |
| RELINQUISHED BY/REMOVED FROM David Tyra/David Tyra 3/1/05 | DATE/TIME 0530 | RECEIVED BY/STORED IN A. Rhinehart | DATE/TIME 3/1/05 | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | |

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|--------------------------|-----------------|-------------|-----------|
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |
| | | | |

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F05-009-036

PAGE 1 OF 1

| | | | | | |
|--|---|---|--|---|---------------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 88 | DATA TURNAROUND |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C470S 44°-46' | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | AIR QUALITY <input type="checkbox"/> | 7 Days / 15 Days |
| ICE CHEST NO. | FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | |
| SHIPPED TO Severn Trent Incorporated, Richland | OFFSITE PROPERTY NO. N/A | BILL OF LADING/AIR BILL NO. N/A | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS J5C010147 WD4569 | PRESERVATION | None | | |
| | | TYPE OF CONTAINER | aG | | |
| | | NO. OF CONTAINER(S) | 1 | | |
| | | VOLUME | 60mL | | |
| SAMPLE ANALYSIS Neptopic Uranium; Technetium-99; Total Uranium; | | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | |
| B1CDH3 | SOIL | 2-28-05 | 1300 | X G494N | |
| CHAIN OF POSSESSION SIGN/ PRINT NAMES | | | | | |
| RELINQUISHED BY/REMOVED FROM JSP/PS/1/8/05 2-28-05 | DATE/TIME | RECEIVED BY/STORED IN MO-026/Act #1 2-28-05 | DATE/TIME | ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | |
| RELINQUISHED BY/REMOVED FROM MD-026/FRM #1 3/1/05 0600 | DATE/TIME | RECEIVED BY/STORED IN DO-026/Act #1 3/1/05 0600 | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM DO-026/Act #1 3/1/05 0930 | DATE/TIME | RECEIVED BY/STORED IN DO-026/Act #1 A. Rhinehart 3/1/05 0930 | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | |
| LABORATORY SECTION | RECEIVED BY | TITLE | | | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | | DATE/TIME |

SEVERN
STRENT

STL

Sample Check-in List

Date/Time Received: 3/01/05 @ 9:30 a.m.

Client: FHI SDG #: W04S69 NA [] SAF #: F05-009 NA []

Work Order Number: JSC010147 Chain of Custody # F05-009-031, -035, -036

Shipping Container ID: NA Air Bill #: NA

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? Yes No []
4. Cooler temperature: NA 5. Vermiculite/packing materials is NA [] Wet [] Dry
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 tape hazard labels
 custody seals appropriate samples labels
9. Samples are:
 in good condition leaking
 broken have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA pH<2 [] pH>2 [] pH>9 []
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed. Yes No []
12. Were any anomalies identified in sample receipt? Yes [] No
13. Description of anomalies (include sample numbers): _____

Sample Custodian:

Date: 3/01/05

| Client Sample ID | Analysis Requested | Condition | Comments/Action |
|------------------|--------------------|-----------|-----------------|
| | | | |
| | | | |
| | | | |

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-028 | PAGE 1 OF 1 |
|--|--|---|---------------------------|--|----------------|--|---------------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | | PRICE CODE BB | DATA TURNAROUND |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C4712 42'-44' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | | AIR QUALITY <input checked="" type="checkbox"/> | 7 Days / 15 Days |
| ICE CHEST NO. Q-50639 | | FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | | |
| SHIPPED TO Severn Trent Incorporated, Richland | | OFFSITE PROPERTY NO. N/A | | BILL OF LADING/AIR BILL NO. N/A | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/REMARKS W04572169 Due 3/08/05 J5CO20147 | PRESERVATION None | TYPE OF CONTAINER SG | NO. OF CONTAINER(S) 1 | VOLUME 60mL | Sample Analysis Neptonic Uranium; Technetium-99; Total Uranium; | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE 3-1-05 | SAMPLE TIME 1110 | X | G5DGR | | |
| CHAIN OF POSSESSION | | | | | | | |
| RELINQUISHED BY/REMOVED FROM JS Pepe 3-1-05 | DATE/TIME 1400 | RECEIVED BY/STORED IN O.Har Bins | DATE/TIME 3/1/05 14:00 | SIGN/ PRINT NAMES <i>Joe K</i> | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION | RECEIVED BY | | | | TITLE | DATE/TIME | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | | | | DISPOSED BY | DATE/TIME | |

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F05-009-027

PAGE 1 OF 1

COLLECTOR
POPE/PFISTER/MOKLER/TYRA

SAMPLING LOCATION
216-U-1 & 216-U-2;
ICE CHEST NO.

COMPANY CONTACT
JACKSON, RL

TELEPHONE NO.
372-9004

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8B

DATA TURNAROUND

7 Days /
15 Days

C4712 35'-37'

SHIPPED TO
Severn Trent Incorporated, Richland

MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS
 A=Air
 DL=Drum
 Liquids
 DS=Drum
 Solids
 L=Liquid
 O=Oil
 S=Soil
 SE=Sediment
 T=Tissue
 V=Vegetation
 W=Water
 WI=Wipe
 X=Other
 W04572 69
 Due 3/08/05
 J5C020147

PROJECT DESIGNATION
U Plant Closure Contaminant Plume Refinement

FIELD LOGBOOK NO. COA

SAF NO.
F05-009

AIR QUALITY

OFFSITE PROPERTY NO.
N/A

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

BILL OF LADING/AIR BILL NO.
N/A

| PRESERVATION | None |
|----------------------------|------|
| TYPE OF CONTAINER | Ag |
| NO. OF CONTAINER(S) | 1 |
| VOLUME | 60mL |

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

Isotopic
Uranium;
Technetium-99;
Total Uranium;

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | SDG NUMBER | | | |
|-------------------|----------------|--------------------|--------------------|-------------------|-------|--|--|
| B1CDF4 | SOIL | 3/1/05 | 1030 | X | G5DG7 | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

CHAIN OF POSSESSION

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|-------------------------------------|------------------|------------------------------|------------------|
| TC4712 ASH 3-1-05 | 1400 | 0. HAN B. 1. SO. - | 3/1/05 14:00 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS

** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99.
 ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|---------------------------------|------------------------|--------------------|------------------|
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-025 | PAGE 1 OF 1 |
|--|---|---|--|------------------------------------|---------------------------|---|---------------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | | PROJECT COORDINATOR TRENT, SJ | | PRICE CODE 88 | DATA TURNAROUND |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C4712 10'-12' | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | | SAF NO. F05-009 | | AIR QUALITY <input type="checkbox"/> | 7 Days / 15 Days |
| ICE CHEST NO. | FIELD LOGBOOK NO. | COA 11914)ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | | | |
| SHIPPED TO Severn Trent Incorporated, Richland | OFFSITE PROPERTY NO. N/A | | | BILL OF LADING/AIR BILL NO. N/A | | | |
| MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS W045 69 72 3/3/2005 Due 3/08/05 S J5C020147 | PRESERVATION None | TYPE OF CONTAINER aG | NO. OF CONTAINER(S) 1 | VOLUME 60mL | Isotopic: Uranium; Technetium-99; Total Uranium; | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE 3-1-05 | SAMPLE TIME 0950 | X | SDG | | |
| B1CDF2 | SOIL | | | | | | |
| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | | | SPECIAL INSTRUCTIONS | | |
| RELINQUISHED BY/REMOVED FROM <i>DSR/RL/RJH</i> | DATE/TIME 3-1-05 1400 | RECEIVED BY/STORED IN <i>DLAB/RL/RSO</i> | | | DATE/TIME 3/1/05 14:00 | ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | | | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | | | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | | | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | | | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | | | DATE/TIME | | |
| LABORATORY SECTION | RECEIVED BY | | | | TITLE | DATE/TIME | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | | | | DISPOSED BY | DATE/TIME | |

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F05-009-026

PAGE 1 OF 1

COLLECTOR
POPE/PFISTER/MOKLER/TYRA

SAMPLING LOCATION
216-U-1 & 216-U-2, C4712 30°-32'
ICE CHEST NO.

COMPANY CONTACT
JACKSON, RL

TELEPHONE NO.
372-9004

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8B
AIR QUALITY

DATA TURNAROUND
7 Days /
15 Days

SHIPPED TO

Severn Trent Incorporated, Richland

MATRIX*
A=Air
DL=Drum
Liquids
DS=Drum
Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

W04572
Due 3/08/05

J5C020147

PRESERVATION

None

TYPE OF CONTAINER

AG

NO. OF CONTAINER(S)

1

VOLUME

60mL

SAMPLE ANALYSIS

Isotopic
Uranium;
Technetium-99;
Total Uranium;

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | | | |
|------------|---------|-------------|-------------|---|-------|--|--|--|--|--|--|
| B1CDF3 | SOIL | 3-1-05 | 0950 | R | G5DGQ | | | | | | |

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

| | | | |
|--|-----------|--|---------------------------|
| RELINQUISHED BY/REMOVED FROM J5DPE/1987 3/1-05 1400 | DATE/TIME | RECEIVED BY/STORED IN D.HAB. - 1500 | DATE/TIME 3/1/05 14:00 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99.
** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.

| | | | |
|--------------------------|-----------------|-------------|-----------|
| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F05-009-030

PAGE 1 OF 1

| | | | | | |
|--|---|---|--|--|--|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA /HUGES/ES SAMPLING LOCATION 216-U-1 & 216-U-2; ICE CHEST NO. GRP-05-003 SHIPPED TO Severn Trent Incorporated, Richland | COMPANY CONTACT JACKSON, RL PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | TELEPHONE NO. 372-9004 SAF NO. F05-009 | PROJECT COORDINATOR TRENT, SJ METHOD OF SHIPMENT GOVERNMENT VEHICLE | PRICE CODE BB AIR QUALITY <input type="checkbox"/> | DATA TURNAROUND 7 Days / 15 Days |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other POSSIBLE SAMPLE HAZARDS/ REMARKS W0452269 11/3/05 JSC020167 | FIELD LOGBOOK NO. HUF-N-4391 OFFSITE PROPERTY NO. N/A | COA 119141ES10 | BILL OF LADING/AIR BILL NO. N/A | | |
| SPECIAL HANDLING AND/OR STORAGE | PRESERVATION None TYPE OF CONTAINER 3G NO. OF CONTAINER(S) 1 VOLUME 60mL | SAMPLE ANALYSIS Isotopic Uranium; Technetium-99; Total Uranium; | | | |
| SAMPLE NO. B1CDF7 | MATRIX* SOIL | SAMPLE DATE 2-26-05 0940 | SAMPLE TIME ✓ | 65DHE | |
| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | | SPECIAL INSTRUCTIONS | |
| RELINQUISHED BY/REMOVED FROM R. PFISTER | DATE/TIME 2/25/05 1505 | RECEIVED BY/STORED IN FRIG #1 2 MO-026 | DATE/TIME 2/25/05 1505 | ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/grm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | |
| RELINQUISHED BY/REMOVED FROM M0026 Friday #1 | DATE/TIME 2-28-05 0900 | RECEIVED BY/STORED IN Lynn D. HUGHES | DATE/TIME 2-28-05 | | |
| RELINQUISHED BY/REMOVED FROM Lynn D. HUGHES | DATE/TIME 2-28-05 0920 | RECEIVED BY/STORED IN Pam Anderson | DATE/TIME 2-28- | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | |
| LABORATORY SECTION | RECEIVED BY | TITLE | | DATE/TIME | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | DATE/TIME | |

Fluor Hanford Inc.

COLLECTOR
POPE/PFISTER/MOKLER/TYRA

SAMPLING LOCATION

216-U-1 & 216-U-2;

C471B 44'-46'

ICE CHEST NO.

GRP-OS-003

SHIPPED TO

Severn Trent Incorporated, Richland

| MATRIX* | POSSIBLE SAMPLE HAZARDS/ REMARKS |
|--------------|----------------------------------|
| A=Air | |
| DL=Drum | |
| Liquids | |
| DS=Drum | |
| Solids | |
| L=Liquid | |
| O=Oil | |
| S=Soil | |
| SE=Sediment | |
| T=Tissue | |
| V=Vegetation | |
| W=Water | |
| WI=Wipe | |
| X=Other | |

W0452269
JH
3/21/05

J5C020167

SPECIAL HANDLING AND/OR STORAGE

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | SAMPLE ANALYSIS | | | | TESTS REQUESTED | TESTS PERFORMED |
|------------|---------|-------------|-------------|-----------------|------|--|--|-----------------|-----------------|
| B1CDF6 | SOIL | 2/24/05 | 1330 | X | 6SDH | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/ REMOVED FROM DATE/TIME RECEIVED BY/STORED IN DATE/TIME ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99.

RELINQUISHED BY/ REMOVED FROM DATE/TIME RECEIVED BY/STORED IN DATE/TIME ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.

70026 Fridge #1 2-28-05/0900 RECEIVED BY/STORED IN DATE/TIME

RELINQUISHED BY/ REMOVED FROM DATE/TIME RECEIVED BY/STORED IN DATE/TIME

70026 Fridge #1 2-28-05/0925 RECEIVED BY/STORED IN DATE/TIME

RELINQUISHED BY/ REMOVED FROM DATE/TIME RECEIVED BY/STORED IN DATE/TIME

RELINQUISHED BY/ REMOVED FROM DATE/TIME RECEIVED BY/STORED IN DATE/TIME

RELINQUISHED BY/ REMOVED FROM DATE/TIME RECEIVED BY/STORED IN DATE/TIME

** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99.

** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

SEVERN
STRENT

STL

Sample Check-in List

Date/Time Received: 2/28/05 @ 9:20 AM 69
Client: FHI SDG #: WD 4522 SH3120F NA [] SAF #: OS-009 NA []
Work Order Number: JSC000167 Chain of Custody #: FAS-009-29-30
Shipping Container ID: NIA Air Bill #: NIA

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? Yes No []
4. Cooler temperature: NA 5. Vermiculite/packing materials is NA [] Wet [] Dry
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? No Yes [] No []
8. Samples have:
 tape hazard labels
 custody seals appropriate samples labels
9. Samples are:
 in good condition leaking
 broken have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA pH<2 [] pH>2 [] pH>9 []
11. Sample Location, Sample Collector Listed? * Yes No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Opal Date: 2/28/05

| Client Sample ID | Analysis Requested | Condition | Comments/Action |
|------------------|--------------------|-----------|-----------------|
| | | | |
| | | | |
| | | | |

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager: _____ Date: _____

LS-023, 9/03, Rev. 5

SEVERN
STRENT

STL

Sample Check-in List

Date/Time Received: 3/1/05 14:00 69 3432105

Client: FLUOR SDG #: W04573 NA [] SAF #: F05-009 NA []

Work Order Number: J5C000167 Chain of Custody # F05009028, F05009027

Shipping Container ID: NIA Air Bill # NIA F05009025
F05009026

1. Custody Seals on shipping container intact? NA Yes [] No []
2. Custody Seals dated and signed? NA Yes [] No []
3. Chain of Custody record present? Yes No []
4. Cooler temperature: NA ✓ S. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [] Yes [] No []
8. Samples have:
 tape hazard labels
 custody seals appropriate samples labels
9. Samples are:
 in good condition leaking
 broken have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? 6.0 ✓ pH<2 [] pH>2 [] pH>9 []
11. Sample Location, Sample Collector Listed? * Yes [] No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No []
13. Description of anomalies (include sample numbers): _____

Sample Custodian: D. Miller

Date: 3/1/05

| Client Sample ID | Analysis Requested | Condition | Comments/Action |
|------------------|--------------------|-----------|-----------------|
| | | | |
| | | | |

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

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Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F05-009-033

PAGE 1 OF 1

COLLECTOR
POPE/PFISTER/MOKLER/TYRA

SAMPLING LOCATION
216-U-1 & 216-U-2;
ICE CHEST NO.

C 4768 44'-46'

COMPANY CONTACT
JACKSON, RLTELEPHONE NO.
372-9004PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8B

DATA TURNAROUND

SAF NO.
F05-009

AIR QUALITY

7 Days /
15 Days

SHIPPED TO

Severn Trent Incorporated, Richland

MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS
 A=Air
 DL=Drum
 Liquids
 DS=Drum
 Solids
 L=Liquid
 O=Oil
 S=Soil
 SE=Sediment
 T=Tissue
 V=Vegetation
 W=Water
 WI=Wipe
 X=Other

W045le9
J5C080200

| | |
|---------------------|---|
| PRESERVATION | None |
| TYPE OF CONTAINER | 8G |
| NO. OF CONTAINER(S) | 1 |
| VOLUME | 60mL |
| SAMPLE ANALYSIS | Isotopic Uranium; Technetium-99; Total Uranium; |

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
|------------|---------|-------------|-------------|---|-------|--|--|--|--|
| B1CDH0 | SOIL | 3-2-05 | 1240 | X | G5GD7 | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99.
 ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.

| | | | |
|---|-------------------|---|--------------------------|
| RELINQUISHED BY/REMOVED FROM R. PFISTER/PRL 3/2/05 | DATE/TIME 1655 | RECEIVED BY/STORED IN MO-026 FR1651 3/2/05 | DATE/TIME 1655 |
| RELINQUISHED BY/REMOVED FROM MO-026/REF # 1 3-3-05 | DATE/TIME 0600 | RECEIVED BY/STORED IN J.S. PPL 3-3-05 | DATE/TIME 0600 |
| RELINQUISHED BY/REMOVED FROM J.S. PPL 3-3-05 | DATE/TIME 0655 | RECEIVED BY/STORED IN J.S. PPL 3-3-05 | DATE/TIME 3-3-05 0855 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|--------------------------|-----------------|-------------|-----------|
| | | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

Fluor Hanford Inc.

COLLECTOR
POPE/PFISTER/MOKLER/TYRA

SAMPLING LOCATION

216-U-1 & 216-U-2; C4707 44'-46'

ICE CHEST NO.

SHIPPED TO

Severn Trent Incorporated, Richland

| MATRIX* | POSSIBLE SAMPLE HAZARDS/ REMARKS |
|--|----------------------------------|
| A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | W04569 J5C030200 |
| | |
| | |
| | |

| SPECIAL HANDLING AND/OR STORAGE | | SAMPLE ANALYSIS | | TESTS | | TESTS | | TESTS | | TESTS | |
|---------------------------------|---------|-----------------|-------------|-------|-------|-------|--|-------|--|-------|--|
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | | | |
| B1CDH1 | SOIL | 3/2/05 | 1530 | X | G50EC | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

CHAIN OF POSSESSION

| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME |
|------------------------------|-----------|-----------------------------------|-----------|
| R.P. POPE / R. MOKLER 3/2/05 | 1655 | MO-026 FRIG #1 3/2/05 1655 | |
| RELINQUISHED BY/REMOVED FROM | | | |
| MU-026, RCF #1 3-3-05 | 0600 | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | | | |
| J.S. POPE / R. MOKLER 3-3-05 | 0855 | J.S. POPE / R. MOKLER 3-3-05 0600 | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | | | |
| RELINQUISHED BY/REMOVED FROM | | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | | | |
| RELINQUISHED BY/REMOVED FROM | | RECEIVED BY/STORED IN | DATE/TIME |
| RELINQUISHED BY/REMOVED FROM | | | |

SPECIAL INSTRUCTIONS

** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99.
 ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.

| LABORATORY SECTION | RECEIVED BY | TITLE | DATE/TIME |
|--------------------------|-----------------|-------------|-----------|
| | | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | DATE/TIME |

| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-053 | PAGE 1 OF 1 |
|--|---|---|--------------------------|---|--------------------------------------|------------------|-------------------------------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C4709 44'-48' ICE CHEST NO. | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | AIR QUALITY <input type="checkbox"/> | | |
| SHIPPED TO Severn Trent Incorporated, Richland | | FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | | |
| | | OFFSITE PROPERTY NO. N/A | | BILL OF LADING/AIR BILL NO. N/A | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Duplicate</i> WO4569 J5C030200 | PRESERVATION | None | | | | |
| | | TYPE OF CONTAINER | 8G | | | | |
| | | NO. OF CONTAINER(S) | 1 | | | | |
| | | VOLUME | 60mL | | | | |
| | | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | Isotopic Uranium; Technetium-99; Total Uranium; | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE 3-2-05 | SAMPLE TIME 1000 | K G5GEF | | | |
| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | | | SPECIAL INSTRUCTIONS | | |
| RELINQUISHED BY/REMOVED FROM R. PFISTER/RL 3/2/05 | DATE/TIME 1655 | RECEIVED BY/STORED IN M0-026 FR16#1 | DATE/TIME 3/2/05 1655 | ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | | | |
| RELINQUISHED BY/REMOVED FROM MU-026/RKF 4/1 3-3-05 | DATE/TIME 0600 | RECEIVED BY/STORED IN J.S. POPE/ASLM 3-3-05 | DATE/TIME 0600 | | | | |
| RELINQUISHED BY/REMOVED FROM J.S. POPE/ASLM 3-3-05 | DATE/TIME 0655 | RECEIVED BY/STORED IN T. T. HODGES/ASLM | DATE/TIME 3305 0855 | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION | RECEIVED BY | TITLE | | | DATE/TIME | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | | DATE/TIME | | |

SEVERN
FRENT

STL

Sample Check-in List

Date/Time Received: 3-3-05 0855

Client: FH SDG #: W04569 NA [] SAF #: F05-009 NA []

Work Order Number: J5C030100 Chain of Custody # F05-009-034, 32, 53, 33

Shipping Container ID: UHA Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes [x] No []
2. Custody Seals dated and signed? NA [] Yes [x] No []
3. Chain of Custody record present? Yes [x] No []
4. Cooler temperature: NA [x] 5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [] Yes [] No [x]
8. Samples have:
 tape hazard labels
 custody seals appropriate samples labels
9. Samples are:
 in good condition leaking
 broken have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA [x] pH<2 [] pH>2 [] pH>9 []
11. Sample Location, Sample Collector Listed? * Yes [] No [x]
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No [x]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Hildethor Date: 3-3-05

| Client Sample ID | Analysis Requested | Condition | Comments/Action |
|------------------|--------------------|-----------|-----------------|
| | | | |
| | | | |
| | | | |

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

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| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-086 | PAGE 1 | OF 1 | |
|--|---|---|---|--|-------|------------------|------------------|-----------|--|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | | PRICE CODE BB | DATA TURNAROUND | | |
| SAMPLING LOCATION 216-U-8 | C4720 44 ft - 416 ft | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | | AIR QUALITY | 7 Days / 15 Days | | |
| ICE CHEST NO. Q-50639 | | FIELD LOGBOOK NO. HUF-N-4391 | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | | | | |
| SHIPPED TO Severn Trent Incorporated, Richland | | OFFSITE PROPERTY NO. N/A | | BILL OF LADING/AIR BILL NO. N/A | | | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS J5CD40248 SDG# W04569 Due 3/11/05 | PRESERVATION None | | | | | | | |
| | | TYPE OF CONTAINER SDG | | | | | | | |
| | | NO. OF CONTAINER(S) 1 | | | | | | | |
| | | VOLUME 60mL | | | | | | | |
| | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | Isotopic Uranium; Technetium-99; Total Uranium; | | | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE 3-3-05 | SAMPLE TIME 1100 | X | GSKJL | | | | |
| B1CF72 | SOIL | | | | | | | | |
| CHAIN OF POSSESSION | | | | | | | | | |
| RELINQUISHED BY/REMOVED FROM <i>J Mokler Jr. 3/3/05</i> | DATE/TIME 3/3/05 15:00 | SIGN/ PRINT NAMES <i>J Mokler Jr.</i> | SPECIAL INSTRUCTIONS ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | | | | | | |
| RELINQUISHED BY/REMOVED FROM <i>M0-070, RFF #1, 3/4/05, 0630</i> | DATE/TIME 3/4/05 0630 | RECEIVED BY/STORED IN <i>RFF #1 3/4/05 REF</i> | DATE/TIME 3/3/05 15:00 | | | | | | |
| RELINQUISHED BY/REMOVED FROM <i>David Tyra, 3/4/05 1130</i> | DATE/TIME 3/4/05 1130 | RECEIVED BY/STORED IN <i>David Tyra, 3/4/05 0430</i> | DATE/TIME 3/4/05 1130 | | | | | | |
| RELINQUISHED BY/REMOVED FROM <i>David Tyra, 3/4/05 1130</i> | DATE/TIME 3/4/05 1130 | RECEIVED BY/STORED IN <i>David Tyra, 3/4/05 0430</i> | DATE/TIME 3/4/05 1130 | | | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | | | |
| LABORATORY SECTION | RECEIVED BY | TITLE | | | | | | DATE/TIME | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | | | | | DATE/TIME | |

| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-087 | PAGE 1 OF 1 |
|--|---|---|--|---|-----------|--------------------------------------|------------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | | PRICE CODE 8B | DATA TURNAROUND |
| SAMPLING LOCATION 216-U-8; (472) 44ft - 46ft 44' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | | AIR QUALITY <input type="checkbox"/> | 7 Days / 15 Days |
| ICE CHEST NO. | | FIELD LOGBOOK NO. HNF-N-4391 | COA 119141E510 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | | |
| SHIPPED TO Severn Trent Incorporated, Richland | | OFFSITE PROPERTY NO. N/A | BILL OF LADING/AIR BILL NO. N/A | | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS J5C 040248 SDG#1 W04569 Due 3/11/05 | PRESERVATION None | | | | | |
| | | TYPE OF CONTAINER BG | | | | | |
| | | NO. OF CONTAINER(S) 1 | | | | | |
| | | VOLUME 60mL | | | | | |
| | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | Isotopic Uranium; Technetium-99; Total Uranium; | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE 3/3/05 | SAMPLE TIME 1350 X | G5K5T | | | |
| B1CF73 | SOIL | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| CHAIN OF POSSESSION | | | | SIGN/ PRINT NAMES | | | |
| RELINQUISHED BY/REMOVED FROM <u>2. Mokler, D. W.</u> | DATE/TIME 5/3/05 1500 | RECEIVED BY/STORED IN <u>M0-026/RFF</u> | DATE/TIME 5/3/05 1500 | SPECIAL INSTRUCTIONS ** The STL-RL laboratory is to achieve a detection limit of 1 pCi/gm for Tc-99. ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | | | |
| RELINQUISHED BY/REMOVED FROM <u>M0-026/RFF #1</u> | DATE/TIME 1/3-4-05 / 0630 | RECEIVED BY/STORED IN <u>DAVID TYRA/David E</u> | DATE/TIME 1/3-4-05 / 0630 | | | | |
| RELINQUISHED BY/REMOVED FROM <u>DAVID TYRA/David E</u> | DATE/TIME 3/4/05 1130 | RECEIVED BY/STORED IN <u>A. Riecker</u> | DATE/TIME 3/4/05 1130 | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION | RECEIVED BY | | | TITLE | DATE/TIME | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | | | DISPOSED BY | DATE/TIME | | |

SEVERN
TRENTE

STL

Sample Check-in List

Date/Time Received: 3/04/05 @ 11:30 AM

Client: FLtt SDG #: W04569 NA [] SAF #: F05-009 NA []

Work Order Number: J5CO40248 Chain of Custody # F05-009-084, -087

Shipping Container ID: N/A

Air Bill # N/A

1. Custody Seals on shipping container intact? NA [] Yes [] No []
2. Custody Seals dated and signed? NA [] Yes [] No []
3. Chain of Custody record present? Yes [] No []
4. Cooler temperature: NA ✓ 5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [] Yes [] No []
8. Samples have:
 tape hazard labels
 custody seals appropriate samples labels
9. Samples are:
 in good condition leaking
 broken have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA [] pH<2 [] pH>2 [] pH>9 []
11. Sample Location, Sample Collector Listed? * Yes [] No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No []
13. Description of anomalies (include sample numbers): _____

Sample Custodian:

April Thrush / Rickert Date: 3/04/05

| Client Sample ID | Analysis Requested | Condition | Comments/Action |
|------------------|--------------------|-----------|-----------------|
| | | | |
| | | | |
| | | | |

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

3/5/2005 1:10:47 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, FLUOR HANFORD IC
Hanford Inc

, Flour

KW Ulso PrpRC5013/5032/5086 SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec

Report Due: 03/11/2005

SI CLIENT: HANFORD

Pipet #: _____

Batch: 5063543 SOIL

pCi/g

PM, Quote: BG2, 50639

SEQ Batch, Test: None

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: , HansenM

| Work Order, Lot, Sample Date/Time | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Dish Size | Ppt or Geometry | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: |
|--------------------------------------|--|--|--|--------------|--------------------|-------------------|----------------|---------------------------------|--------------------------------|----------------------|
| 1 G494H-1-AE J5C010147-1-SAMP | 2.07g,in | UITC12533 01/31/05.pd 10/12/04.r | ZOO | | | | | | | |
| 02/28/2005 16:10 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 6.68E+01 pCi/g | Beta: 1.78E+01 pCi/g |
| 2 G494L-1-AE J5C010147-2-SAMP | 2.05g,in | UITC12534 01/31/05.pd 10/12/04.r | | | | | | | | |
| 02/28/2005 09:30 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 8.59E+01 pCi/g | Beta: 2.56E+01 pCi/g |
| 3 G494N-1-AE J5C010147-3-SAMP | 2.02g,in | UITC12535 01/31/05.pd 10/12/04.r | | | | | | | | |
| 02/28/2005 13:00 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 8.68E+01 pCi/g | Beta: 2.09E+01 pCi/g |
| 4 G5DGR-1-AE J5C020167-1-SAMP | 2.00g,in | UITC12536 01/31/05.pd 10/12/04.r | | | | | | | | |
| 03/01/2005 11:10 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 4.72E+01 pCi/g | Beta: 1.40E+01 pCi/g |
| 5 G5DGT-1-AE J5C020167-2-SAMP | 2.00g,in | UITC12537 01/31/05.pd 10/12/04.r | | | | | | | | |
| 03/01/2005 10:30 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 5.73E+01 pCi/g | Beta: 1.62E+01 pCi/g |
| 6 G5DGX-1-AE J5C020167-3-SAMP | 2.03g,in | UITC12538 01/31/05.pd 10/12/04.r | | | | | | | | |
| 03/01/2005 08:50 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 4.78E+01 pCi/g | Beta: 1.20E+01 pCi/g |
| 7 G5DG2-1-AE J5C020167-4-SAMP | 2.00g,in | UITC12539 01/31/05.pd 10/12/04.r | | | | | | | | |
| 03/01/2005 09:50 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 6.26E+01 pCi/g | Beta: 1.65E+01 pCi/g |
| STL Richland Richland Wa. | Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added | Page 1 | ISV - Insufficient Volume for Analysis | WO Cnt: 7 | | | | | | |
| | | | | | | | | | Prep_SamplePrep v4.8.08 | |

| 3/5/2005 1:13:11 PM | | Sample Preparation/Analysis | | | | | | | Balance Id:1120373922 | | | |
|---|--|--|---|-----------|-----------------|----------------|----------------|--|--------------------------------|------------------------|-------------------------|--|
| 108302, FLUOR HANFORD IC Hanford Inc | | , Flour | KW Uiso PrpRC5013/5032/5086 SepRC5067(5039) SR Uranium-234,235,238 by Alpha Spec | | | | Pipet #: _____ | | | | | |
| Report Due: 03/11/2005 | | SI CLIENT: HANFORD | | | | | | | Sep1 DT/Tm Tech: _____ | | | |
| Batch: 5063543 SOIL | | pCi/g | PM, Quote: BG2, 50639 | | | | | | | Sep2 DT/Tm Tech: _____ | | |
| SEQ Batch, Test: None | | | | | | | | | Prep Tech: ,HansenM | | | |
| Work Order, Lot, Sample DateTime | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Dish Size | Ppt or Geometry | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: | | |
| 8 G5DHE-1-AE J5C020167-5-SAMP | 2.10g,in | UITC12540 01/31/05,pd 10/12/04,r | | ZOO | | | | | | | | |
| 02/25/2005 09:40 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 6.68E+01 pCi/g | Beta: 1.27E+01 pCi/g | | |
| 9 G5DHII-1-AE J5C020167-6-SAMP | 2.00g,in | UITC12541 01/31/05,pd 10/12/04,r | | | | | | | | | | |
| 02/24/2005 13:30 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 6.20E+01 pCi/g | Beta: 1.75E+01 pCi/g | | |
| 10G5GDT-1-AJ J5C030200-1-SAMP | 2.00g,in | UITC12542 01/31/05,pd 10/12/04,r | | | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: 60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 6.98E+01 pCi/g | Beta: 1.67E+01 pCi/g | | |
| 11G5GD7-1-AE J5C030200-2-SAMP | 2.03g,in | UITC12543 01/31/05,pd 10/12/04,r | | | | | | | | | | |
| 03/02/2005 12:40 | AmtRec: 60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 5.15E+01 pCi/g | Beta: 1.40E+01 pCi/g | | |
| 12G5GEC-1-AE J5C030200-3-SAMP | 2.00g,in | UITC12544 01/31/05,pd 10/12/04,r | | | | | | | | | | |
| 03/02/2005 15:30 | AmtRec: 60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 8.83E+01 pCi/g | Beta: 2.06E+01 pCi/g | | |
| 13G5GEF-1-AE J5C030200-4-SAMP | 2.06g,in | UITC12545 01/31/05,pd 10/12/04,r | | | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: 60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: 4.79E+01 pCi/g | Beta: 1.24E+01 pCi/g | | |
| 14G5KJL-1-AE J5C040248-1-SAMP | 2.00g,in | UITC12546 01/31/05,pd 10/12/04,r | | | | | | | | | | |
| 03/03/2005 11:00 | AmtRec: JAR60MLG | #Containers: 1 | | | | | | | Scr Rst: Alpha: _____ | Beta: _____ | | |
| STL Richland Richland Wa. | Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added | | | | | | | ISV - Insufficient Volume for Analysis | | | WO Cnt: 14 | |
| | | | | | | | | | | | Prep_SamplePrep v4.8.08 | |

3/5/2005 1:13:12 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, FLUOR HANFORD IC
Hanford Inc

, Flour

KW Uiso PrpRC5013/5032/5086 SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec

Report Due: 03/11/2005

SI CLIENT: HANFORD

Pipet #: _____

Batch: 5063543 SOIL

pCi/g

PM, Quote: BG2, 50639

SEQ Batch, Test: None

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: , Hansen M

| Work Order, Lot, Sample Date/Time | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Dish- Size | Ppt or Geometry | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: |
|--------------------------------------|-------------------|-----------------------------|--|---------------|--------------------|-------------------|----------------|---------------------------------|--------------------------|-----------|
| 15G5KJL-1-AG-X J5C040248-1-DUP | 2.09g,in | | UTC12547 01/31/05, pd 10/12/04,r | | | 200 | | | | |
| 03/03/2005 11:00 | | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: | Alpha: | Beta: |
| 16G5KJT-1-AE J5C040248-2-SAMP | 2.04g,in | | UTC12548 01/31/05, pd 10/12/04,r | | | | | | | |
| 03/03/2005 13:50 | | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: | Alpha: | Beta: |
| 17G5L1G-1-AA-B J5C040000-543-BLK | 2.00g,in | | UTC12549 01/31/05, pd 10/12/04,r | | | | | | | |
| 03/03/2005 11:00 | | AmtRec: | #Containers: 1 | | | | | Scr Rst: | Alpha: | Beta: |
| 18G5L1G-1-AC-C J5C040000-543-LCS | 2.00g,in | | UISH0348 02/10/05, pd 07/23/04,r | | | | | | | |
| 03/03/2005 11:00 | | AmtRec: | #Containers: 1 | | | | | Scr Rst: | Alpha: | Beta: |

Comments: Sample G5KJL-X over flowed while wet ashing just 10-70% mH 3/9/05
 Sample was crushed with 3/9/05

All Clients for Batch:
108302, FLUOR HANFORD

Flour Hanford Inc , BG2, 50639

G494H1AE-SAMP Constituent List:

| | | | | | | | | | | | |
|-------|-------|-------|--------|---------|--------|-------|-------|-------|------|------|------|
| U-232 | RDL: | pCi/g | LCL:20 | UCL:105 | RPD:35 | U-234 | RDL:1 | pCi/g | LCL: | UCL: | RPD: |
| U-235 | RDL:1 | pCi/g | LCL: | UCL: | RPD: | U-238 | RDL:1 | pCi/g | LCL: | UCL: | RPD: |

G5L1G1AA-BLK:

| | | | | | | | | | | | |
|-------|-------|-------|--------|---------|--------|-------|-------|-------|------|------|------|
| U-232 | RDL: | pCi/g | LCL:20 | UCL:105 | RPD:35 | U-234 | RDL:1 | pCi/g | LCL: | UCL: | RPD: |
| U-235 | RDL:1 | pCi/g | LCL: | UCL: | RPD: | U-238 | RDL:1 | pCi/g | LCL: | UCL: | RPD: |

3/11/2005 11:58:20 AM

ICOC Fraction Transfer/Status Report

By Date: 3/11/2004, 3/16/2005, Batch: '5063543', User: *ALL Order By DateTimeAccepting

| Q | Batch | Work Ord | CurStatus | Accepting | Comments |
|----------------|-------|----------|-----------|----------------------|-------------------------|
| 5063543 | | | | | |
| AC | | CalcC | WhitneyT | 3/4/2005 6:38:08 PM | |
| SC | | wagnerj | IsBatched | 3/4/2005 5:41:41 PM | ICOC_RADCALC v4.8.08 |
| SC | | WhitneyT | InPrep | 3/4/2005 6:38:08 PM | RICH-RC-5013 REVISION 5 |
| SC | | WhitneyT | Prep1C | 3/5/2005 12:05:33 PM | RICH-RC-5013 REVISION 5 |
| SC | | HansenM | InPrep2 | 3/5/2005 1:32:17 PM | RICH-RC-5032 REVISION 2 |
| SC | | HansenM | Prep2C | 3/8/2005 2:02:44 PM | RICH-RC-5032 REVISION 2 |
| SC | | FinchA | InSep1 | 3/9/2005 8:05:15 AM | RICH-RC-5067 REVISION 6 |
| SC | | FinchA | Sep1C | 3/10/2005 8:05:43 AM | RICH-RC-5067 REVISION 6 |
| SC | | BarbosaH | InSep2 | 3/10/2005 8:47:52 AM | RICHRC5039 REV4 |
| SC | | BarbosaH | Sep2C | 3/10/2005 1:05:56 PM | RICHRC5039 REV4 |
| SC | | BlackCL | CalcC | 3/11/2005 8:23:10 AM | RICH-RD-0008 REVISION 3 |
| AC | | WhitneyT | | 3/5/2005 12:05:33 PM | jwDone |
| AC | | HansenM | | 3/5/2005 1:32:17 PM | |
| AC | | HansenM | | 3/8/2005 2:02:44 PM | |
| AC | | FinchA | | 3/9/2005 8:05:15 AM | |
| AC | | FinchA | | 3/10/2005 8:05:43 | |
| AC | | BarbosaH | | 3/10/2005 8:47:52 | |
| AC | | BarbosaH | | 3/10/2005 1:05:56 PM | |
| AC | | BlackCL | | 3/11/2005 8:23:10 | |

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 9

ICOFraction v4.8.09

3/4/2005 5:26:26 PM

108302, FLUOR HANFORD IC
Hanford Inc

Report Due: 03/11/2005

Sample Preparation/Analysis

Balance Id:

, Flour AN Tc-99 Prp/SepRC5013/5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

PRIORITY

Sep1 DT/Tm Tech:

Batch: 5063294 SOIL pCi/g
SEQ Batch, Test: None All Tests: 7SSR, 7ZSS, 880V, ANS5, 5063294 ANS5, 5063295 880V,

Sep2 DT/Tm Tech:

Prep Tech:

| Work Order, Lot, Sample DateTime | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: |
|--|-------------------|-----------------------------|------------------------|-------------------|----------------|---------------------------------|--------------------------------|----------------------|
| 1 G494H-1-AD J5C010147-1-SAMP [REDACTED] | | | | | | | | |
| 02/28/2005 16:10 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.68E+01 pCi/g | Beta: 1.78E+01 pCi/g |
| 2 G494L-1-AD J5C010147-2-SAMP [REDACTED] | | | | | | | | |
| 02/28/2005 09:30 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 8.59E+01 pCi/g | Beta: 2.56E+01 pCi/g |
| 3 G494N-1-AD J5C010147-3-SAMP [REDACTED] | | | | | | | | |
| 02/28/2005 13:00 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 8.68E+01 pCi/g | Beta: 2.09E+01 pCi/g |
| 4 GSDGR-1-AD J5C020167-1-SAMP [REDACTED] | | | | | | | | |
| 03/01/2005 11:10 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 4.72E+01 pCi/g | Beta: 1.40E+01 pCi/g |
| 5 GSDGT-1-AD J5C020167-2-SAMP [REDACTED] | | | | | | | | |
| 03/01/2005 10:30 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 5.73E+01 pCi/g | Beta: 1.62E+01 pCi/g |
| 6 GSDGX-1-AD J5C020167-3-SAMP [REDACTED] | | | | | | | | |
| 03/01/2005 08:50 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 4.78E+01 pCi/g | Beta: 1.20E+01 pCi/g |
| 7 GSDG2-1-AD J5C020167-4-SAMP [REDACTED] | | | | | | | | |
| 03/01/2005 09:50 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.26E+01 pCi/g | Beta: 1.65E+01 pCi/g |
| | | | | | | | | |

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 7

ICO v4.8.08

3/4/2005 5:26:27 PM

108302, FLUOR HANFORD IC
Hanford Inc

, Flour

AN Tc-99 Prp/SepRC5013/5078
S5 Technetium-99 by Liquid Scint
SI CLIENT: HANFORD

PRIORITY

Report Due: 03/11/2005

Batch: 5063294 SOIL

pCi/g

PM, Quote: BG2, 50639

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

| Work Order, Lot, Sample DateTime | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: |
|-------------------------------------|--|-----------------------------|--|-------------------|----------------|---------------------------------|--------------------------------|----------------------|
| 8 G5DHE-1-AD J5C020167-5-SAMP | | | | | | | | |
| 02/25/2005 09:40 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.68E+01 pCi/g | Beta: 1.27E+01 pCi/g |
| 9 G5DHH-1-AD J5C020167-6-SAMP | | | | | | | | |
| 02/24/2005 13:30 | AmtRec: JAR60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.20E+01 pCi/g | Beta: 1.75E+01 pCi/g |
| 10G5GDT-1-AD J5C030200-1-SAMP | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: 60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.98E+01 pCi/g | Beta: 1.67E+01 pCi/g |
| 11G5GDT-1-AF-S J5C030200-1-MS | | | TCSG0866 Ex:3/3/06 | | | | | |
| 03/02/2005 10:00 | AmtRec: 60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.98E+01 pCi/g | Beta: 1.67E+01 pCi/g |
| 12G5GDT-1-AG-X J5C030200-1-DUP | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: 60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 6.98E+01 pCi/g | Beta: 1.67E+01 pCi/g |
| 13G5GD7-1-AD J5C030200-2-SAMP | | | | | | | | |
| 03/02/2005 12:40 | AmtRec: 60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 5.15E+01 pCi/g | Beta: 1.40E+01 pCi/g |
| 14G5GEC-1-AD J5C030200-3-SAMP | | | | | | | | |
| 03/02/2005 15:30 | AmtRec: 60MLG | #Containers: 1 | | | | | Scr Rst: Alpha: 8.83E+01 pCi/g | Beta: 2.06E+01 pCi/g |
| STL Richland Richland Wa. | Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added | Page 2 | ISV - Insufficient Volume for Analysis | WO Cnt: 14 | ICOC v4.8.08 | | | |

3/4/2005 5:26:28 PM

Sample Preparation/Analysis

108302, FLUOR HANFORD IC
Hanford Inc.

Flour

AN Tc-99 Brp/SerBCE013/5078

S5 Technetium-99 by Liquid Scint

35 TechneMedia 99 by E

Report Due: 03/11/2005

Batch: 5063294 SOII

SE0 Batch Test: None

10

PM Quote: BG2 50639

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

SeB2 DT/Tm Tech:

Prep Techz

| Work Order, Lot, Sample DateTime | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: |
|---|----------------------|-----------------------------|------------------------|-------------------|----------------|---------------------------------|--------------------------|----------------------|
| 15G5GEF-1-AD J5C030200-4-SAMP [REDACTED] | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: 60MLG | #Containers: 1 | | | | Scr Rst: | Alpha: 4.79E+01 pCi/g | Beta: 1.24E+01 pCi/g |
| 16G5JXF-1-AA-B J5C040000-294-BLK [REDACTED] | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: | #Containers: 1 | | | | Scr Rst: | Alpha: | Beta: |
| 17G5JXF-1-AC-C J5C040000-294-LCS [REDACTED] | TCSG0956 Excluded | | | | | | | |
| 03/02/2005 10:00 | AmtRec: | #Containers: 1 | | | | Scr Rst: | Alpha: | Beta: |
| 18G5JXF-1-AD-BN J5C040000-294-IBLK [REDACTED] | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: | #Containers: 1 | | | | Scr Rst: | Alpha: | Beta: |
| 19G5JXF-1-AE-BN J5C040000-294-IBLK [REDACTED] | | | | | | | | |
| 03/02/2005 10:00 | AmtRec: | #Containers: 1 | | | | Scr Rst: | Alpha: | Beta: |
| 20G5KJL-1-AC J5C040248-1-SAMP [REDACTED] | | | | | | | | |
| 03/03/2005 11:00 | AmtRec: JAR60MLG | #Containers: 1 | | | | Scr Rst: | Alpha: | Beta: |
| 21G5KJT-1-AC J5C040248-2-SAMP [REDACTED] | | | | | | | | |
| 03/03/2005 13:50 | AmtRec: JAR60MLG | #Containers: 1 | | | | Scr Rst: | Alpha: | Beta: |

STL Richland Key: In - Initial Amt, fi - Final Amt, dl - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3
Richland Wa rd - Pre DI r - Reference Dt ec-Enrichment Cell ct-Cocktail Added

ISV - Insufficient Volume for Analysis

WO Cnt: 21

ICOC v4.8.08

3/4/2005 5:26:29 PM

Sample Preparation/Analysis

Balance Id:

108302, FLUOR HANFORD IC
Hanford Inc

, Flour

AN Tc-99 Prp/SepRC5013/5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

Pipet #:

Report Due: 03/11/2005

Sep1 DT/Tm Tech:

Batch: 5063294 SOIL

pCi/g

PM, Quote: BG2, 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

| Work Order, Lot, Sample DateTime | Total Amt/Unit | Initial Aliquot Amt/Unit | QC Tracer Prep Date | Count Time Min | Detector Id | Count On Off (24hr) Circle | CR Analyst, Init/Date | Comments: |
|-------------------------------------|-------------------|-----------------------------|------------------------|-------------------|----------------|---------------------------------|--------------------------|-----------|
|-------------------------------------|-------------------|-----------------------------|------------------------|-------------------|----------------|---------------------------------|--------------------------|-----------|

Comments:

All Clients for Batch:

108302, FLUOR HANFORD IC
108302, FLUOR HANFORD ICFlour Hanford Inc
Flour Hanford Inc, BG2, 50639
, BG2, 50639

G494H1AD-SAMP Constituent List:

Tc-99 RDL:15 pCi/g LCL:70 UCL:130 RPD:35

G5GDT1AF-MS:

G5JXF1AA-BLK:

Tc-99 RDL:15 pCi/g LCL: UCL: RPD:

G5JXF1AC-LCS:

Tc-99 RDL:15 pCi/g LCL:70 UCL:130 RPD:35

G5JXF1AD-IBLK:

Tc-99 RDL:15 pCi/g LCL: UCL: RPD:

G5JXF1AK-IBLK:

Tc-99 RDL:15 pCi/g LCL: UCL: RPD:

G494H1AD-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

G5GDT1AF-MS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

G5JXF1AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

G5JXF1AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

G5JXF1AD-IBLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

G5JXF1AK-IBLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____

Date: _____

3/14/2005 10:57:22 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/14/2004, 3/19/2005, Batch: '5063294', User: 'ALL Order By DateTimeAccepting'

| Q | Batch | Work Ord | CurStatus | Accepting | Comments |
|----------------|-------|----------|-------------|-------------------------------|-------------------------|
| 5063294 | | | | | |
| AC | | CalcC | WhitneyT | 3/4/2005 6:36:00 PM | |
| SC | | | heidelbergT | isBatched 3/4/2005 9:47:46 AM | ICOC_RADCALC v4.8.08 |
| SC | | | WhitneyT | InPrep 3/4/2005 6:36:00 PM | RICH-RC-5013 REVISION 5 |
| SC | | | WhitneyT | Prep1C 3/5/2005 12:04:49 PM | RICH-RC-5013 REVISION 5 |
| SC | | | FinchA | InSep1 3/7/2005 2:19:06 PM | RICH-RC-5078 REVISION2 |
| SC | | | FinchA | Sep1C 3/10/2005 2:18:38 PM | RICH-RC-5079 REVISION 2 |
| SC | | | StringerR | InCnt1 3/10/2005 2:41:04 PM | RICH-RD-0001 REVISION 3 |
| SC | | | BlackCL | CalcC 3/14/2005 9:41:31 AM | RICH-RD-0001 REVISION 3 |
| AC | | | WhitneyT | 3/5/2005 12:04:49 PM | jwDone |
| AC | | | FinchA | 3/7/2005 2:19:06 PM | |
| AC | | | FinchA | 3/10/2005 2:18:38 PM | |
| AC | | | StringerR | 3/10/2005 2:41:04 PM | |
| AC | | | BlackCL | 3/14/2005 9:41:31 | |

AC: Accepting Entity, SC: Status Change

STL Richland
Richland Wa.

Page 1

Grp Rec Cnt:6
ICOCFractions v4.8.09

SEVERN
TRENT

STL

STL St. Louis
13715 Rider Trail North
Earth City, MO 63045

Tel: 314 298 8566 Fax: 314 298 8757
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 216-U-1/216-U-2

F05-009

Lot #: F5C040263
SDG #: W04569

Steve Trent
Fluor Hanford Inc
825 Jadwin Ave.
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.



Marti Ward
MARTI WARD
Project Manager

March 11, 2005

Case Narrative
LOT NUMBER: F5C040263
W04569

This report contains the analytical results for the nine samples received under chain of custody by STL St. Louis on March 4, 2005. These samples are associated with your F05-009 SAF.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by STL St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Nitrate/Nitrite

There were no comments or non-conformances associated with this data.



SAMPLE SUMMARY

F5C040263

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|-------|---------|------------------|--------------|-----------|
| G5KMF | 001 | B1CDH4 | 03/01/05 | 09:50 |
| G5KML | 002 | B1CDH5 | 03/01/05 | 09:50 |
| G5KMN | 003 | B1CDH6 | 03/01/05 | 10:30 |
| G5KMP | 004 | B1CDH7 | 03/01/05 | 11:10 |
| G5KMR | 005 | B1CDH8 | 02/24/05 | 13:30 |
| G5KMT | 006 | B1CDH9 | 02/25/05 | 09:40 |
| G5KM0 | 007 | B1CDJ0 | 02/28/05 | 16:10 |
| G5KM1 | 008 | B1CDJ4 | 02/28/05 | 09:30 |
| G5KM4 | 009 | B1CDJ5 | 02/28/05 | 13:00 |

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

FSC040263

| <u>PARAMETER</u> | <u>ANALYTICAL METHOD</u> | <u>PREPARATION METHOD</u> |
|------------------|------------------------------|-------------------------------|
| Nitrate-Nitrite | MCANW 353.1 | |
| Percent Moisture | MCANW 160.3 MOD | MCANW 160.3 MOD |

References:

MCANW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.

| Fluor Hanford Inc. CCL 5346 | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | P05-009-037 | PAGE 1 OF 1 |
|--|---|---|--|--|--|---------------|---|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 8B | DATA TURNAROUND ST. LOUIS 7 Days / 15 Days |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C4712 10'-12' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. P05-009 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | |
| ICE CHEST NO. GRR-04-019 | | FIELD LOGBOOK NO. | COA 119141ES10 | BILL OF LADING/AIR BILL NO. NA ① 20 PTR 14972 | ① Led Ex ① MAB 3/3/05 | | |
| SHIPPED TO Severn Trent St. Louis | | OPPOSITE PROPERTY NO. NA ① 20 PTR 14972 | | NA ① 20 PTR 14972 | | | |
| MATRIX* A=Air Dl=Drum Liquids DS=Drum Soil L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS Bad futo B1CDD0 W04569 | PRESERVATION | None | | | | |
| | | TYPE OF CONTAINER | MG | | | | |
| | | NO. OF CONTAINER(S) | 1 | | | | |
| | | VOLUME | 60mL | | | | |
| | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | |
| B1CDH4 | SOIL | 3-1-05 | 0650 X | | | | |
| CHAIN OF POSSESSION | | | | SIGN/PRINT NAMES | | | |
| RELINQUISHED BY/REMOVED FROM TAPE/450m 3-1-05 | DATE/TIME 1500 | RECEIVED BY/STORED IN HR-026/Ref. #1 3-1-05 | DATE/TIME 1500 | SPECIAL INSTRUCTIONS ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. (1) ICP-Metals - 6010B (Supertrace) (Arsenic, Boron, Cadmium, Chromium, Lead, Selenium, Silver) ICP-Metals - 6010B (Superbase Add-On) (Antimony, Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Titanium, Vanadium, Zinc) Mercury - 7470 - (EV), NO2/NO3 - 353.1; RDP 2/28/05 | | | |
| RELINQUISHED BY/REMOVED FROM MO-226 RPT 3/3/05 0935 | DATE/TIME 0935 | RECEIVED BY/STORED IN HR-026/Ref. #1 3/3/05 0935 | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM HR-026 RPT 3/3/05 0935 | DATE/TIME 0935 | RECEIVED BY/STORED IN HR-026/Ref. #1 3/3/05 0935 | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION | RECEIVED BY B-D-S | TITLE | | DATE/TIME 3/4/05 0900 | | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | DATE/TIME | | | |

F05# F5C040263

W04569

| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-038 | PAGE 1 OF 1 | STL CT. LOUIC | |
|---|--|---|---|--|--|---------------------------|-------------|---------------------|--|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 88 | DATA TURNAROUND | | | | |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C 4712 30' - 32' | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | AIR QUALITY <input type="checkbox"/> | 7 Days / 15 Days | | | | |
| ICE CHEST NO. GRP-04-019 | FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT/SHIPPING | ① Fed Ex ① mAB 3/3/05 | | | | | |
| SHIPPED TO Severn Trent St. Louis | OPPOSITE PROPERTY NO. WA ① 36 PTR 14972 | BILL OF LADING/AIR BILL NO. WA ① 36 PTR 14972 | | | | | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Read to B1CDH1</i> | PRESERVATION | None | | | | | | |
| | | TYPE OF CONTAINER | 6 | | | | | | |
| | | NO. OF CONTAINER(S) | 1 | | | | | | |
| | | VOLUME | 50ML | | | | | | |
| | SPECIAL HANDLING AND/OR STORAGE | | SAMPLE ANALYSIS | | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | |
| B1CDH5 | SOIL | 3-105 | 0950 | | | | | | |
| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | | | SPECIAL INSTRUCTIONS | | | | |
| RELINQUISHED BY/REMOVED FROM JS/AM/AGM 3-1-05 1500 | DATE/TIME | RECEIVED BY/STORED IN MG-026/Lab 641 3-1-05 1500 | DATE/TIME | ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. (1) ICP-Metals - 6010B (Supertrace) (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver) ICP-Metals - 6010B (Supertrace Add-On) (Antimony, Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Titanium, Vanadium, Zinc) Mercury - 7470 (GIA); NO2/NO3 - 353.1; | | | | | |
| RELINQUISHED BY/REMOVED FROM WD-226 REJ 3/105 0935 | DATE/TIME | RECEIVED BY/STORED IN MG-026/Lab 641 3/105 0935 | DATE/TIME | | | | | | |
| RELINQUISHED BY/REMOVED FROM WD-226 REJ 3/105 0935 | DATE/TIME | RECEIVED BY/STORED IN MG-026/Lab 641 3/105 0935 | DATE/TIME | | | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | | | |
| LABORATORY SECTION 8-D-P | RECEIVED BY | | | | TITLE | DATE/TIME 3/10/05 0900 | | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | | | | DISPOSED BY | DATE/TIME | | | |

STL ST. LOUIS

~~ST. LOUIS~~

LOT# F5C040263

W04569

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| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-040 | PAGE 1 OF 1 |
|---|---|---|-----------------|--|--|---|--|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 8B AIR QUALITY <input type="checkbox"/> | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C4712 42°-44' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | | SAF NO. F05-009 | | |
| ICE CHEST NO. GPP-04-019 | | FIELD LOGBOOK NO. | | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | ① FedEx ① mAB 3/3/05 | |
| SHIPPED TO Severn Trent St. Louis | | OPPOSITE PROPERTY NO. NA ① 30 PTR 14972 | | BILL OF LADING/AIR BILL NO. NA ① 30 PTR 14972 | | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Bad to B1CDH3</i> | PRESERVATION | None | | | | |
| | | TYPE OF CONTAINER | NG | | | | |
| | | NO. OF CONTAINER(S) | 1 | | | | |
| | | VOLUME | 60ML | | | | |
| | | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | |
| B1CDH7 | SOIL | 3-1-05 | 1110 | | | | |
| CHAIN OF POSSESSION SIGN/ PRINT NAMES SPECIAL INSTRUCTIONS ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. (1) ICP-Metals - 6010B (Supertrace) (Arsenic, Beryllium, Cadmium, Chromium, Lead, Selenium, Silver) ICP Metals - 6010B (Supertrace-Add-On) (Antimony, Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Titanium, Vanadium, Zinc) Mercury - 7470 - (2); NO2/NO3 - 353.1; <i>RB 2/28/05</i> | | | | | | | |
| RELINQUISHED BY/REMOVED FROM TSI/POPE 3-1-05 1500 | DATE/TIME | RECEIVED BY/STORED IN HNG-026/RCF # 3-1-05 1500 | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM MP-CO 3/1/05 0136 | DATE/TIME | RECEIVED BY/STORED IN HNG-026/RCF # 3/1/05 0136 | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM MP-CO 3/1/05 0136 | DATE/TIME | RECEIVED BY/STORED IN HNG-026/RCF # 3/1/05 0136 | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION 6-019 | RECEIVED BY | TITLE | | | | DATE/TIME 3/1/05 0900 | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | | | DATE/TIME | |

| FILER Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | P05-009-041 | PAGE 1 OF 1 |
|--|--|---|--|--|---|---------------------|-----------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 88 | DATA TURNAROUND |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C471B 4W'-4E' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. P05-009 | AIR QUALITY <input type="checkbox"/> | 7 Days / 15 Days | |
| ICE CHEST NO. <i>See PTR 14972</i> | | FIELD LOGBOOK NO. <i>400</i> | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | <i>P05-009-041 Rec'd Ex Q mAB 3/31/05</i> | | |
| SHIPPED TO Severn Trent St. Louis | | OFFSITE PROPERTY NO. <i>-WA ① GRP-02-019</i> | | | BILL OF LADING/AIR BILL NO. <i>-WA ① See PTR 14972</i> | | |
| MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Pad to B1CDH8</i> | PRESERVATION | None | | | | |
| | | TYPE OF CONTAINER | PC | | | | |
| | | NO. OF CONTAINER(S) | 1 | | | | |
| | | VOLUME | 60mL | | | | |
| | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | |
| B1CDH8 | SOIL | 2/24/05 | 1330 X | | | | |
| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | | | SPECIAL INSTRUCTIONS | | |
| RELINQUISHED BY/REMOVED FROM <i>5/10/05 DR 14972</i> | DATE/TIME <i>2/24/05 1405</i> | RECEIVED BY/STORED IN <i>5R105-1 (MoPrs)</i> | DATE/TIME <i>2/24/05 1426</i> | <p>** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.</p> <p>(1) ICP-Metals - 6010B (Supertrace) (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver) ICP-Metals - 6010B (Supertrace Add-On) (Antimony, Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Titanium, Vanadium, Zinc) Mercury - 7470 (Q) NO2/NO3 - 353.1;</p> <p><i>MAB 2/24/05</i></p> | | | |
| RELINQUISHED BY/REMOVED FROM <i>5/10/05 DR 14972</i> | DATE/TIME <i>2/24/05 1405</i> | RECEIVED BY/STORED IN <i>5R105-1 (MoPrs)</i> | DATE/TIME <i>2/24/05 1426</i> | | | | |
| RELINQUISHED BY/REMOVED FROM <i>5/10/05 DR 14972</i> | DATE/TIME <i>2/24/05 1405</i> | RECEIVED BY/STORED IN <i>5R105-1 (MoPrs)</i> | DATE/TIME <i>2/24/05 1426</i> | | | | |
| RELINQUISHED BY/REMOVED FROM <i>5/10/05 DR 14972</i> | DATE/TIME <i>2/24/05 1405</i> | RECEIVED BY/STORED IN <i>5R105-1 (MoPrs)</i> | DATE/TIME <i>2/24/05 1426</i> | | | | |
| RELINQUISHED BY/REMOVED FROM <i>5/10/05 DR 14972</i> | DATE/TIME <i>2/24/05 1405</i> | RECEIVED BY/STORED IN <i>5R105-1 (MoPrs)</i> | DATE/TIME <i>2/24/05 1426</i> | | | | |
| RELINQUISHED BY/REMOVED FROM <i>5/10/05 DR 14972</i> | DATE/TIME <i>2/24/05 1405</i> | RECEIVED BY/STORED IN <i>5R105-1 (MoPrs)</i> | DATE/TIME <i>2/24/05 1426</i> | | | | |
| LABORATORY SECTION <i>5-R-14</i> | RECEIVED BY <i>5-R-14</i> | TITLE | | | DATE/TIME <i>3/4/05 0900</i> | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | | DATE/TIME | | |

| FLUOR HANFORD INC. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | | | |
|--|--|---|----------------------------------|--|--|-----------|--|-------|
| COLLECTOR POPE/FISTER/MOKLER/TYRA / 46 = 42 | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 8B | PAGE 1 OF 1 | ST. LOUIS | | |
| SAMPLING LOCATION 216-U-1 & 216-U-2; ICE CHEST NO. 04-04-01/92/20/03 SHIPPED TO | PROJECT DESIGNATION U Park Closure Contaminant Plume Refinement | FIELD LOGBOOK NO. HUF-N-44391 | COA 119141ES10 | AIR QUALITY <input type="checkbox"/> | DATA TURNAROUND 7 Days / 15 Days | | | |
| | | METHOD OF SHIPMENT CONTAINMENT VEHICLE BILL OF LADING/AIR BLD NO. WxD 24 PTC 14472 | | | | | | |
| | | SAMPLE PROPERTY NO. WxD 24 PTC 14472 | | | | | | |
| Severn Trent St. Louis | | PRESERVATION None | | | | | | |
| POSSIBLE SAMPLE HAZARDS/ REMARKS <i>had both B1005</i> | | TYPE OF CONTAINER #6 | | | | | | |
| | | NO. OF CONTAINER(S) 1 | | | | | | |
| | | VOLUME 50ml | | | | | | |
| SPECIAL HANDLING AND/OR STORAGE | | SAMPLE ANALYSIS See Item (1) in Spec. Instructions | | | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE 2-25-05 0940 | SAMPLE TIME A | SPECIAL INSTRUCTIONS | | | | |
| B10DH9 | SOIL | | | ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. | | | | |
| (1) Cd-Metals - 63300 (Supertrace)-arsenic-Boron-Chromium-Cobalt-Chromium-Copper-Manganese-Nickel-Selenium-Titanium-Vanadium-Zinc-Mercury-7470-(Cd)-NO2/NO3 - 353.1; | | | | | | | | |
| MBS 2/28/05 | | | | | | | | |
| CHAIN OF POSSESSION | | | | | | | | |
| RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | DATE/TIME 02/25/05 1505 | RECEIVED BY/STORED IN MO-OZ-216-2/1505 | DATE/TIME 02/25/05 1505 | RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | | | | |
| RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | DATE/TIME 02/25/05 1505 | RECEIVED BY/STORED IN MO-OZ-216-2/1505 | DATE/TIME 02/25/05 1505 | RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | | | | |
| RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | DATE/TIME 02/25/05 1505 | RECEIVED BY/STORED IN MO-OZ-216-2/1505 | DATE/TIME 02/25/05 1505 | RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | | | | |
| RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | DATE/TIME 02/25/05 1505 | RECEIVED BY/STORED IN MO-OZ-216-2/1505 | DATE/TIME 02/25/05 1505 | RELINQUISHED BY/REMOVED FROM R.P./STE/2/2005 | | | | |
| LABORATORY SECTION P-HS | RECEIVED BY P-HS | DISPOSAL METHOD | | DATE/TIME 2/28/05 0922 | | | | |
| FINAL SAMPLE DISPOSITION | | | | DATE/TIME 2/28/05 0922 | | | | |
| DISPOSED BY | | | | | | | | TITLE |

LOT# F5C040263

W04569

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| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-043 | PAGE 1 OF 1 |
|---|---|---|---------------------------------|--|--|---|--|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 8B AIR QUALITY <input type="checkbox"/> | DATA TURNAROUND 7 Days / RP 2/28/05 15 Days / RP 2/28/05 |
| SAMPLING LOCATION 216-U-1 & 216-U-2; C4711 44°-46' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | SAF NO. F05-009 | | | |
| ICE CHEST NO. GHP-04-019 | | FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | fed EX. DmaB 3/3/05 | |
| SHIPPED TO Severn Trent St. Louis | | OPPOSITE PROPERTY NO. NAID 32 PTC K4972 | | BILL OF LADING/AIR BILL NO. NAID 32 PTC 14972 | | | |
| MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Padfut to B1CD06</i> | | PRESERVATION | None | | | |
| | | | TYPE OF CONTAINER | SDG | | | |
| | | | NO. OF CONTAINER(S) | 1 | | | |
| | | | VOLUME | 50mL | | | |
| | | | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | |
| B1CD06 | SOIL | 2/28/05 | 1610 | | | | |
| CHAIN OF POSSESSION | | SIGN/PRINT NAMES | | SPECIAL INSTRUCTIONS | | | |
| RELINQUISHED BY/REMOVED FROM 3/10/05 2-28-05 | DATE/TIME +5 1700 | RECEIVED BY/STORED IN My 126/Aff.#1 2-28-05 | DATE/TIME 1700 | ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. (1)ICP-Metals - 60108 (Supertrace) (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver) ICP-Metals - 60108 (Supertrace Add-On) (Antimony, Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Titanium, Vanadium, Zinc) Mercury - 7420 (EV), NO2/NO3 - 353.1; RP 2/28/05 | | | |
| RELINQUISHED BY/REMOVED FROM 3/10/05 2-28-05 | DATE/TIME +5 1700 | RECEIVED BY/STORED IN 1700 | DATE/TIME 3/10/05 | | | | |
| RELINQUISHED BY/REMOVED FROM 3/10/05 2-28-05 | DATE/TIME +5 1700 | RECEIVED BY/STORED IN Fed Ex | DATE/TIME 1700 | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION | RECEIVED BY B-01 | TITLE | | | | DATE/TIME 3/4/05 0900 | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | | | DATE/TIME | |

| FLUOR HANFORD INC. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | FMS-009-047 | | PAGE 1 | OF 1 |
|--|---|--|--|---------------------------------------|---|---|----------------------|---------------------------------------|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | COMPANY CONTACT JACKSON, RL | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE 8B | DATA TURNAROUND 7 Days / 15 Days | AIR QUALITY <input type="checkbox"/> | | |
| SAMPLING LOCATION 216-U-1 & 216-U-2; ICE CHEST NO. 6TH-04-019 | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | SAF NO. R05-009 | METHOD OF SHIPMENT Government Vehicle/6 BILL OF LADING/ADVICE OF SHIPMENT #ND 2414072 | OCA 119141ES10 | | | | |
| SHIPPED TO Severn Trent St. Louis | OPPOSITE PROPERTY IN FILE #ND 2414072 | | | | | | | |
| MATRIX* A=Air D=Drum L=Liquid DS=Drum S=Solids L=Liquid C=Crust S=Soil SE=Soil/Matrix T=Table V=Vegetation W=Water W/H=Water/ X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Bad fute BICOFU</i> | PRESERVATION None | TYPE OF CONTAINER PC | NO. OF CONTAINER(S) 1 | VOLUME 50ml | SEE ITEM (1) IN SPECIMEN INSTRUCTIONS | | |
| SPECIAL HANDLING AND/OR STORAGE | | SAMPLE ANALYSIS | | | | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | |
| B10D4 | SOIL | 2-29-95 | 0930 | X | | | | |
| SPECIAL INSTRUCTIONS | | | | | | | | |
| <p>** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly.</p> <p>** Date/Time - 02/08/95 (Supertrace) Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver-Iod-Metals = 02/08/95 (Supertrace) Antimony-Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Vanadium, Zinc, Mercury, - 7470-(GA); NO2/NO3 - 353.1;</p> | | | | | | | | |
| CHAIN OF POSSESSION | | | | | | | | |
| RELINQUISHED BY/REMOVED FROM TS/RL | DATE/TIME 2-25-95 | RECEIVED BY/STORED IN 1700 | DATE/TIME 2-25-95 | RELINQUISHED BY/REMOVED FROM TS/RL | DATE/TIME 2-25-95 | RECEIVED BY/STORED IN 1700 | DATE/TIME 2-25-95 | RELINQUISHED BY/REMOVED FROM TS/RL |
| RELINQUISHED BY/REMOVED FROM TS/RL | DATE/TIME 2-25-95 | RECEIVED BY/STORED IN 1700 | DATE/TIME 2-25-95 | RELINQUISHED BY/REMOVED FROM TS/RL | DATE/TIME 2-25-95 | RECEIVED BY/STORED IN 1700 | DATE/TIME 2-25-95 | RELINQUISHED BY/REMOVED FROM TS/RL |
| RELINQUISHED BY/REMOVED FROM TS/RL | DATE/TIME 2-25-95 | RECEIVED BY/STORED IN 1700 | DATE/TIME 2-25-95 | RELINQUISHED BY/REMOVED FROM TS/RL | DATE/TIME 2-25-95 | RECEIVED BY/STORED IN 1700 | DATE/TIME 2-25-95 | RELINQUISHED BY/REMOVED FROM TS/RL |
| LABORATORY SECTION 6-1-C | RECEIVED BY DISPOSAL METHOD 3/4/95 1900 | | | | | | | |
| FINAL SAMPLE DISPOSITION | | | | | | | | |
| A-503-61A(03/03) | | | | | | | | |

LOT# F5C040263

W04569

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| Fluor Hanford Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | F05-009-048 | PAGE 1 OF 1 |
|--|--|---|---------------------------|---|----------------------------------|---|--|
| COLLECTOR POPE/PFISTER/MOKLER/TYRA | | COMPANY CONTACT JACKSON, RL | | TELEPHONE NO. 372-9004 | PROJECT COORDINATOR TRENT, SJ | PRICE CODE BB <input type="checkbox"/> AIR QUALITY | DATA TURNAROUND 7 Days / 15 Days |
| SAMPLING LOCATION 216-U-1 & 216-U-2; c4705 44' - 46' | | PROJECT DESIGNATION U Plant Closure Contaminant Plume Refinement | | | SAF NO. F05-009 | | STL. ST. LOUIS |
| ICE CHEST NO. GPP-04-019 | | FIELD LOGBOOK NO. | COA 119141ES10 | METHOD OF SHIPMENT GOVERNMENT VEHICLE | | ① AdEx ① MAB 9/3/05 ④ Ad Se FTC N#72 | |
| SHIPPED TO Severn Trent St. Louis | | OPPOSITE PROPERTY NO. TVA ① 21 PLK 14672 | | BILL OF LADING/AIR BILL NO. | | | |
| MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water W=Wipe X=Other | POSSIBLE SAMPLE HAZARDS/ REMARKS <i>Bad futo B1CDJ1</i> | PRESERVATION | None | | | | |
| | | TYPE OF CONTAINER | NG | | | | |
| | | NO. OF CONTAINER(S) | 1 | | | | |
| | | VOLUME | 60mL | | | | |
| | | SPECIAL HANDLING AND/OR STORAGE | SAMPLE ANALYSIS | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | | | |
| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | |
| B1CDJ5 | SOIL | 2-28-05 | 1700 | X | | | |
| CHAIN OF POSSESSION | | SIGN/ PRINT NAMES | | SPECIAL INSTRUCTIONS | | | |
| RELINQUISHED BY/REMOVED FROM <i>BSAPE/ASR</i> | DATE/TIME 2-28-05 1700 | RECEIVED BY/STORED IN <i>MG-026/Ref. #</i> | DATE/TIME 2-28-05 1700 | ** The STL laboratories will close SDGs upon accumulation of 5 samples or at a minimum weekly. (1) ICP-Metals--6010B (Supertrace) (Arsenic, Beryllium, Cadmium, Chromium, Lead, Selenium, Silver). ICP-Metals - 6010B (Supertrace Add-On) (Antimony, Cobalt, Copper, Magnesium, Manganese, Nickel, Strontium, Thallium, Titanium, Vanadium, Zinc); Mercury - 7470 - (CV); NO2/NO3 - 353.1; | | | |
| RELINQUISHED BY/REMOVED FROM <i>NO-026/Ref. #</i> | DATE/TIME 3/1/05 9:05 | RECEIVED BY/STORED IN <i>MG-026/Ref. #</i> | DATE/TIME 3/1/05 9:05 | | | | |
| RELINQUISHED BY/REMOVED FROM <i>NO-026/Ref. #</i> | DATE/TIME 3/1/05 9:05 | RECEIVED BY/STORED IN <i>MG-026/Ref. #</i> | DATE/TIME 3/1/05 9:05 | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME | RECEIVED BY/STORED IN | DATE/TIME | | | | |
| LABORATORY SECTION B-08 | RECEIVED BY | TITLE | | DATE/TIME 3/4/05 0800 | | | |
| FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DISPOSED BY | | DATE/TIME | | | |

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F05-009: R05-009

Group #: WSCF20050456

| Sample # | Client ID | CAS # | Test Performed | Matrix | WSCF Method | RQ | Result | Unit | DF | MDL | Analyze Sample Receive |
|-----------------------|-----------|-------|----------------|--------|-------------|----|--------|-------|------|-----|----------------------------|
| Radiochemistry | | | | | | | | | | | |
| W050000763 | 810004 | GRP | TRENT | SOIL | LA-508-421 | U | -0.140 | PCl/g | 1.00 | 1 | 03/01/05 02/24/05 02/24/05 |
| W050000763 | 810004 | GRP | TRENT | SOIL | LA-508-421 | ++ | 1.4 | PCl/g | 1.00 | 0.0 | 03/01/05 02/24/05 02/24/05 |
| W050000763 | 810004 | GRP | TRENT | SOIL | LA-508-421 | ++ | 6.70 | PCl/g | 1.00 | 14 | 03/01/05 02/24/05 02/24/05 |
| W050000763 | 810004 | GRP | TRENT | SOIL | LA-508-421 | ++ | 3.7 | PCl/g | 1.00 | 0.0 | 03/01/05 02/24/05 02/24/05 |

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than one qualifier symbol
*Report WICPP/Ver. 1.1
Groundwater Remediation Program*

WSCF
ANALYTICAL RESULTS REPORT

| Sample # | Client ID | CAS # | Test Performed | Matrix | Method | RQ | Result | Unit | DF | MDL | Analyze Sample Receive |
|-----------------------|-----------|-------|----------------------|---------------------------------------|------------|----|--------|------|------|-----|----------------------------|
| Radiochemistry | | | | | | | | | | | |
| W05000777 | B1CD01 | TRENT | 12587-46-1 ·E,T,C | Soil | LA-508-421 | U | -0.660 | pg/g | 1.00 | 1.1 | 03/01/05 02/28/05 02/28/05 |
| W05000777 | B1CD01 | TRENT | 12587-47-2 E,T,C | Alpha error by LC Beta error by LC | LA-508-421 | ++ | 2.5 | pg/g | 1.00 | 0.0 | 03/01/05 02/28/05 02/28/05 |
| W05000777 | B1CD01 | TRENT | | Soil | LA-508-421 | U | 7.00 | pg/g | 1.00 | 1.3 | 03/01/05 02/28/05 02/28/05 |
| W05000777 | B1CD01 | TRENT | | Soil | LA-508-421 | ++ | 3.6 | pg/g | 1.00 | 0.0 | 03/01/05 02/28/05 02/28/05 |

LOT# F5C040263

W04569

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

+ - Indicates results that have NOT been validated; + + - Indicates more than six qualifier symbols

Report WGPPVer. 1.1
Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

LOT# F5C040263

Attention: Steve Trent
Project: F05-009: F05-009

Group #: WSCF20050461

| Sample # | Client ID | CAS # | Test Performed | Matrix | WSCF | | Unit | DF | MDL | Analyze Sample Receive | |
|-----------------------|-----------|-------|----------------|------------|-------------------|------|--------------|--------|-------|------------------------|-------------------------------------|
| | | | | | Method | RQ | | | | | |
| Radiochemistry | | | | | | | | | | | |
| W050000787 | B1CDD5 | GRP | TRENT | 12587-48-1 | Gross alpha | SOIL | LA-508-421 U | 0.120 | pCi/g | 1.00 | 1.1 03/01/05 02/25/05 02/28/05 |
| W050000787 | B1CDD5 | GRP | TRENT | E,T,C | Alpha error by LC | SOIL | LA-508-421 | +- | 1.2 | pCi/g | 1.00 0.0 03/01/05 02/25/05 02/28/05 |
| W050000787 | B1CDD5 | GRP | TRENT | 12587-47-2 | Gross beta | SOIL | LA-508-421 | | 7.20 | pCi/g | 1.00 1.3 03/01/05 02/25/05 02/28/05 |
| W050000787 | B1CDD5 | GRP | TRENT | E,T,C | Beta error by LC | SOIL | LA-508-421 | +- | 3.6 | pCi/g | 1.00 0.0 03/01/05 02/25/05 02/28/05 |
| W050000788 | B1CDP0 | GRP | TRENT | 12587-48-1 | Gross alpha | SOIL | LA-508-421 U | -0.300 | pCi/g | 1.00 | 1.1 03/01/05 02/28/05 02/28/05 |
| W050000788 | B1CDP0 | GRP | TRENT | E,T,C | Alpha error by LC | SOIL | LA-508-421 | +- | 2.4 | pCi/g | 1.00 0.0 03/01/05 02/28/05 02/28/05 |
| W050000788 | B1CDP0 | GRP | TRENT | 12587-47-2 | Gross beta | SOIL | LA-508-421 | | 6.90 | pCi/g | 1.00 1.3 03/01/05 02/28/05 02/28/05 |
| W050000788 | B1CDP0 | GRP | TRENT | E,T,C | Beta error by LC | SOIL | LA-508-421 | +- | 3.5 | pCi/g | 1.00 0.0 03/01/05 02/28/05 02/28/05 |

W04569

MDL = Minimum Detection Limit

U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

DF = Dilution Factor

- Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

Page 2

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Steve Trent
Project:
F05-009: F05-009

| Sample # | Client ID | CAS # | Test Performed | Matrix | Method | RQ | Result | Unit | DF | MDL | Analyze Sample Receive |
|-----------------------|-----------|-------|-------------------------|--------|------------|------|--------|-------|------|----------------------------|----------------------------|
| Radiochemistry | | | | | | | | | | | |
| W050000792 | 81CDD0 | TRENT | 12587-46-1 Gross alpha | Soil | LA-508-421 | U | <0.200 | pCi/g | 1.00 | 1.1 | 03/02/05 03/01/05 03/01/05 |
| W050000792 | 81CDD0 | TRENT | E,T,C Alpha error by LC | Soil | LA-508-421 | + | 2.0 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000792 | 81CDD0 | TRENT | 12587-47-2 Gross beta | Soil | LA-508-421 | 6.80 | pCi/g | 1.00 | 1.3 | 03/02/05 03/01/05 03/01/05 | |
| W050000792 | 81CDD0 | TRENT | E,T,C Beta error by LC | Soil | LA-508-421 | + | 3.6 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000793 | 81CDD0 | TRENT | 12587-46-1 Gross alpha | Soil | LA-508-421 | U | <0.100 | pCi/g | 1.00 | 1.1 | 03/02/05 03/01/05 03/01/05 |
| W050000793 | 81CDD0 | TRENT | E,T,C Alpha error by LC | Soil | LA-508-421 | + | 1.0 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000793 | 81CDD0 | TRENT | 12587-47-2 Gross beta | Soil | LA-508-421 | 5.80 | pCi/g | 1.00 | 1.4 | 03/02/05 03/01/05 03/01/05 | |
| W050000793 | 81CDD0 | TRENT | E,T,C Beta error by LC | Soil | LA-508-421 | + | 3.5 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000794 | 81CDD0 | TRENT | 12587-46-1 Gross alpha | Soil | LA-508-421 | U | 0.700 | pCi/g | 1.00 | 1.1 | 03/02/05 03/01/05 03/01/05 |
| W050000794 | 81CDD0 | TRENT | E,T,C Alpha error by LC | Soil | LA-508-421 | + | 2.7 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000794 | 81CDD0 | TRENT | 12587-47-2 Gross beta | Soil | LA-508-421 | 8.30 | pCi/g | 1.00 | 1.4 | 03/02/05 03/01/05 03/01/05 | |
| W050000794 | 81CDD0 | TRENT | E,T,C Beta error by LC | Soil | LA-508-421 | + | 4.2 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000795 | 81CDD0 | TRENT | 12587-46-1 Gross alpha | Soil | LA-508-421 | U | 0.100 | pCi/g | 1.00 | 1.1 | 03/02/05 03/01/05 03/01/05 |
| W050000795 | 81CDD0 | TRENT | E,T,C Alpha error by LC | Soil | LA-508-421 | + | 1.0 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000795 | 81CDD0 | TRENT | 12587-47-2 Gross beta | Soil | LA-508-421 | 7.30 | pCi/g | 1.00 | 1.4 | 03/02/05 03/01/05 03/01/05 | |
| W050000795 | 81CDD0 | TRENT | E,T,C Beta error by LC | Soil | LA-508-421 | + | 3.7 | pCi/g | 1.00 | 0.0 | 03/02/05 03/01/05 03/01/05 |
| W050000796 | 81CDD0 | TRENT | 12587-46-1 Gross alpha | Soil | LA-508-421 | U | 0.500 | pCi/g | 1.00 | 1.1 | 03/02/05 02/28/05 03/01/05 |
| W050000796 | 81CDD0 | TRENT | E,T,C Alpha error by LC | Soil | LA-508-421 | + | 2.4 | pCi/g | 1.00 | 0.0 | 03/02/05 02/28/05 03/01/05 |
| W050000796 | 81CDD0 | TRENT | 12587-47-2 Gross beta | Soil | LA-508-421 | 7.70 | pCi/g | 1.00 | 1.4 | 03/02/05 02/28/05 03/01/05 | |
| W050000796 | 81CDD0 | TRENT | E,T,C Beta error by LC | Soil | LA-508-421 | + | 3.8 | pCi/g | 1.00 | 0.0 | 03/02/05 02/28/05 03/01/05 |

MDL=Minimum Detection Limit U = Analyzed for but not detected above reporting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - indicates results that have NOT been validated;

+ - indicates more than six qualifier symbols

Report WCPP Ver. 1.1
Groundwater Remediation Program

SEVERN
TRENT

STL

Lot No: F5C040263

WO 4569

Condition Upon Receipt Form
St. Louis Laboratory

Client: STL Richland

Date: 3/4/05 Time: 0900

Quote No:

Initiated by: 80

Shipper/No: FEI 791495183725

COC/RFA Numbers: FOS-009-037-043

FOS-009-47)48

Condition/Variance (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

| | | | |
|--|---|---|--|
| 1. <input checked="" type="checkbox"/> N | Sample received in undamaged condition? | 7. <input checked="" type="checkbox"/> N | Sample received with Chain of Custody? |
| 2. <input checked="" type="checkbox"/> N | Sample received within 4°C ± 2°C*? | 8. <input checked="" type="checkbox"/> N | Chain of Custody matches sample IDs on containers? |
| | Record <u>initials</u> | 9. <input checked="" type="checkbox"/> N N/A | Custody seal received intact on cooler? |
| 3. <input checked="" type="checkbox"/> Y N N/A | Sample received with proper pH ¹ ? | 10. <input checked="" type="checkbox"/> N N/A | Custody seal tamper evident on cooler? |
| 4. <input checked="" type="checkbox"/> Y N | If N/A - Was pH taken by original STL lab? | 11. <input checked="" type="checkbox"/> N N/A | Custody seal on bottles received intact? |
| 5. <input checked="" type="checkbox"/> Y N | Sample received in proper containers? | 12. <input checked="" type="checkbox"/> Y N N/A | Custody seal tamper evident on bottles? |
| 6. <input checked="" type="checkbox"/> Y N | Sample volume sufficient for analysis? | 13. <input checked="" type="checkbox"/> Y N | Was CUR (equivalent) rec'd from original STL lab? |

* Temperature Variance Does Not Affect the Following Analyses:

¹For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils.

Notes:

Corrective Action:

- Client's Name: _____ Informed by: _____ By: _____
- Sample(s) processed "as is". _____
- Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Mulard Date: 3-4-05

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED
 IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR
 INITIALS AND THE DATE NEXT TO THAT ITEM

5346

ADMIN-004, Revised 2/17/04
\\S1sv01\QAIFORMS\ST-Louis\ADMIN\Admin004 rev7.doc

WET CHEMISTRY

FLUOR HANFORD IC

Client Sample ID: B1CDE4

General Chemistry

Lot-Sample #....: F5C040263-001 Work Order #....: G5KMF Matrix.....: SOLID
 Date Sampled....: 03/01/05 Date Received...: 03/04/05
 % Moisture.....: 4.6

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION-</u> | <u>PREP</u> |
|----------------------|---------------|------------------|--------------|-----------------|----------------------|----------------|
| | | | | | <u>ANALYSIS DATE</u> | <u>BATCH #</u> |
| Nitrate/Nitrite as N | 1.3 | 0.50 | mg/kg | MCANW 353.1 | 03/10/05 | 5069640 |
| | | Dilution Factor: | 1 | MDL.....: 0.027 | | |
| Percent Moisture | 4.6 | 0.10 | % | MCANW 160.3 MOD | 03/04-03/05/05 | 5066464 |
| | | Dilution Factor: | 1 | MDL.....: | | |

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F5C040263 Work Order #....: G5KMF-SMP Matrix.....: SOLID
 G5KMF-DUP

Date Sampled...: 03/01/05 Date Received..: 03/04/05

% Moisture.....: 4.6

| PARAM | RESULT | DUPLICATE | | RPD | LIMIT | METHOD | PREPARATION- ANALYSIS DATE | PREP BATCH # |
|----------------------|--------|-----------|------------------|-----|--------|-------------|--|-----------------|
| | | RESULT | UNITS | | | | | |
| Nitrate/Nitrite as N | 1.3 | 1.3 | mg/kg | 0.0 | (0-30) | MCAWW 353.1 | SD Lot-Sample #: F5C040263-001 03/10/05 | 5069640 |
| | | | Dilution Factor: | 1 | | | | |

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #....: F5C040263

Matrix.....: SOLID

Date Sampled....: 03/01/05

Date Received..: 03/04/05

Percent Moisture: 3.2

| PARAMETER | SAMPLE SPIKE | | MEASURED | | PERCENT | PREPARATION- | PREP | |
|----------------------|--------------|------|----------|-------------------|----------|------------------|---------------|----------|
| | AMOUNT | AMT | AMOUNT | UNITS | | | | RECOVERY |
| Nitrate/Nitrite as N | | | | Work Order #....: | G5KMFIAE | MS Lot-Sample #: | F5C040263-001 | |
| | 1.3 | 5.00 | 5.86 | mg/kg | 92 | MCAWW 353.1 | 03/10/05 | 5069640 |
| | | | | Dilution Factor: | 1 | | | |

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

FLUOR HANFORD IC

Client Sample ID: B1CDH5

General Chemistry

Lot-Sample #....: F5C040263-002 Work Order #....: G5KML Matrix.....: SOLID
Date Sampled...: 03/01/05 Date Received..: 03/04/05
% Moisture.....: 6.8

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION- ANALYSIS DATE | PREP BATCH # |
|--------------------------|--------|-------|-------|--|-------------------------------|-----------------|
| Nitrate/Nitrite as N 2.2 | 0.50 | mg/kg | | MCANW 353.1 MDL.....: 0.027 | 03/10/05 | 5069640 |
| Percent Moisture | 6.8 | 0.10 | % | MCANW 160.3 MOD Dilution Factor: 1 MDL.....: | 03/04-03/05/05 | 5066464 |

FLUOR HANFORD IC

Client Sample ID: B1CDH6

General Chemistry

Lot-Sample #....: F5C040263-003 Work Order #....: G5KMN Matrix.....: SOLID
Date Sampled....: 03/01/05 Date Received...: 03/04/05
% Moisture.....: 6.4

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION- ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|----------------------|---------------|--------------------|--------------|-----------------|---------------------------------------|-------------------------|
| Nitrate/Nitrite as N | 3.4 | 0.50 | mg/kg | MCANW 353.1 | 03/10/05 | 5069640 |
| | | Dilution Factor: 1 | | MDL.....: 0.027 | | |
| Percent Moisture | 6.4 | 0.10 | % | MCANW 160.3 MOD | 03/04-03/05/05 | 5066465 |
| | | Dilution Factor: 1 | | MDL.....: | | |

FLUOR HANFORD IC

Client Sample ID: B1CDH7

General Chemistry

Lot-Sample #....: F5C040263-004 Work Order #....: G5KMP Matrix.....: SOLID
 Date Sampled....: 03/01/05 Date Received...: 03/04/05
 % Moisture.....: 6.5

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION- ANALYSIS DATE | PREP BATCH # |
|--------------------------|--------|-------|-------|--------------------------------|-------------------------------|-----------------|
| Nitrate/Nitrite as N 2.7 | 0.50 | mg/kg | | MCANW 353.1 MDL.....: 0.027 | 03/10/05 | 5069640 |
| Percent Moisture | 6.5 | 0.10 | % | MCANW 160.3 MOD MDL.....: | 03/04-03/05/05 | 5066465 |

FLUOR HANFORD IC

Client Sample ID: B1CDH8

General Chemistry

Lot-Sample #....: F5C040263-005 Work Order #....: G5KMR Matrix.....: SOLID
 Date Sampled....: 02/24/05 Date Received...: 03/04/05
 % Moisture.....: 2.4

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION- ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|----------------------|---------------|------------------|--------------|-----------------|---------------------------------------|-------------------------|
| Nitrate/Nitrite as N | 0.80 | 0.50 | mg/kg | MCANW 353.1 | 03/10/05 | 5069640 |
| | | Dilution Factor: | 1 | MDL.....: 0.027 | | |
| Percent Moisture | 2.4 | 0.10 | % | MCANW 160.3 MOD | 03/04-03/05/05 | 5066465 |
| | | Dilution Factor: | 1 | MDL.....: | | |

FLUOR HANFORD IC

Client Sample ID: B1CDH9

General Chemistry

Lot-Sample #....: F5C040263-006 Work Order #....: G5KMT Matrix.....: SOLID
 Date Sampled...: 02/25/05 Date Received...: 03/04/05
 % Moisture.....: 5.5

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION- ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|--------------------------|---------------|-----------|--------------|---------------------------------------|---------------------------------------|-------------------------|
| Nitrate/Nitrite as N 2.6 | 0.50 | mg/kg | | MCAWW 353.1 Dilution Factor: 1 | 03/10/05 MDL.....: 0.027 | 5069640 |
| Percent Moisture | 5.5 | 0.10 | % | MCAWW 160.3 MOD Dilution Factor: 1 | 03/04-03/05/05 | 5066465 |

FLUOR HANFORD IC

Client Sample ID: B1CDJ0

General Chemistry

Lot-Sample #....: F5C040263-007 Work Order #....: G5KMO Matrix.....: SOLID
 Date Sampled....: 02/28/05 Date Received...: 03/04/05
 % Moisture.....: 2.4

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION-ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|---------------------------|---------------|-----------|--------------|--------------------------------|----------------------------------|---------------------|
| Nitrate/Nitrite as N 0.86 | 0.50 | mg/kg | | MCANW 353.1 MDL.....: 0.027 | 03/10/05 | 5069640 |
| Percent Moisture 2.4 | 0.10 | % | | MCANW 160.3 MOD MDL.....: | 03/04-03/05/05 | 5066465 |

FLUOR HANFORD IC

Client Sample ID: B1CDJ4

General Chemistry

Lot-Sample #....: F5C040263-008 Work Order #....: G5KML Matrix.....: SOLID
Date Sampled....: 02/28/05 Date Received...: 03/04/05
% Moisture.....: 7.6

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION- ANALYSIS DATE | PREP BATCH # |
|--------------------------|--------|-------|-------|---------------------------------------|-------------------------------|-----------------|
| Nitrate/Nitrite as N 3.7 | 0.50 | mg/kg | | MCANW 353.1 Dilution Factor: 1 | 03/10/05 MDL.....: 0.027 | 5069640 |
| Percent Moisture | 7.6 | 0.10 | % | MCANW 160.3 MOD Dilution Factor: 1 | 03/04-03/05/05 | 5066465 |

FLUOR HANFORD IC

Client Sample ID: B1CDJ5

General Chemistry

Lot-Sample #....: P5C040263-009 Work Order #....: G5KM4 Matrix.....: SOLID
 Date Sampled....: 02/28/05 Date Received...: 03/04/05
 % Moisture.....: 6.4

| <u>PARAMETER</u> | <u>RESULT</u> | <u>RL</u> | <u>UNITS</u> | <u>METHOD</u> | <u>PREPARATION- ANALYSIS DATE</u> | <u>PREP BATCH #</u> |
|--------------------------|---------------|-----------|--------------|-----------------------------------|---------------------------------------|-------------------------|
| Nitrate/Nitrite as N 6.1 | 0.50 | | mg/kg | MCANW 353.1 Dilution Factor: 1 | 03/10/05 | 5069640 |
| Percent Moisture | 6.4 | | 0.10 | % Dilution Factor: 1 | MCANW 160.3 MOD MDL..... | 03/04-03/05/05 5066465 |

METHOD BLANK REPORT

General Chemistry

Client Lot #....: F5C040263

Matrix.....: SOLID

| PARAMETER | RESULT | REPORTING | | | METHOD | PREPARATION- ANALYSIS DATE | PREP BATCH # |
|----------------------|--------|------------------|----------|------------------|---------------|-------------------------------|-----------------|
| | | LIMIT | UNITS | | | | |
| Nitrate/Nitrite as N | ND | Work Order #: | GS1LC1AA | MB Lot-Sample #: | F5C100000-640 | 03/10/05 | 5069640 |
| | | 0.50 | mg/kg | MCAWW 353.1 | | | |
| | | Dilution Factor: | 1 | | | | |

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #....: F5C040263

Matrix.....: SOLID

| PARAMETER | SPIKE | MEASURED | PERCNT | | | METHOD | PREPARATION- | PREP | BATCH # |
|----------------------|--------------------|--------------------------------|--------|--------------|-----------------|----------|---------------|------|---------|
| | AMOUNT | AMOUNT | UNITS | RECVRY | RPD | | ANALYSIS DATE | | |
| Nitrate/Nitrite as N | | WO#:G51LC1AC-LCS/G51LC1AD-LCSD | LCS | Lot-Sample#: | F5C100000-640 | | | | |
| | 4.00 | 3.78 | mg/kg | 94 | MCAWW 353.1 | 03/10/05 | 5069640 | | |
| | 4.00 | 3.85 | mg/kg | 96 | 1.8 MCAWW 353.1 | 03/10/05 | 5069640 | | |
| | Dilution Factor: 1 | | | | | | | | |

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.